

FIG. 1

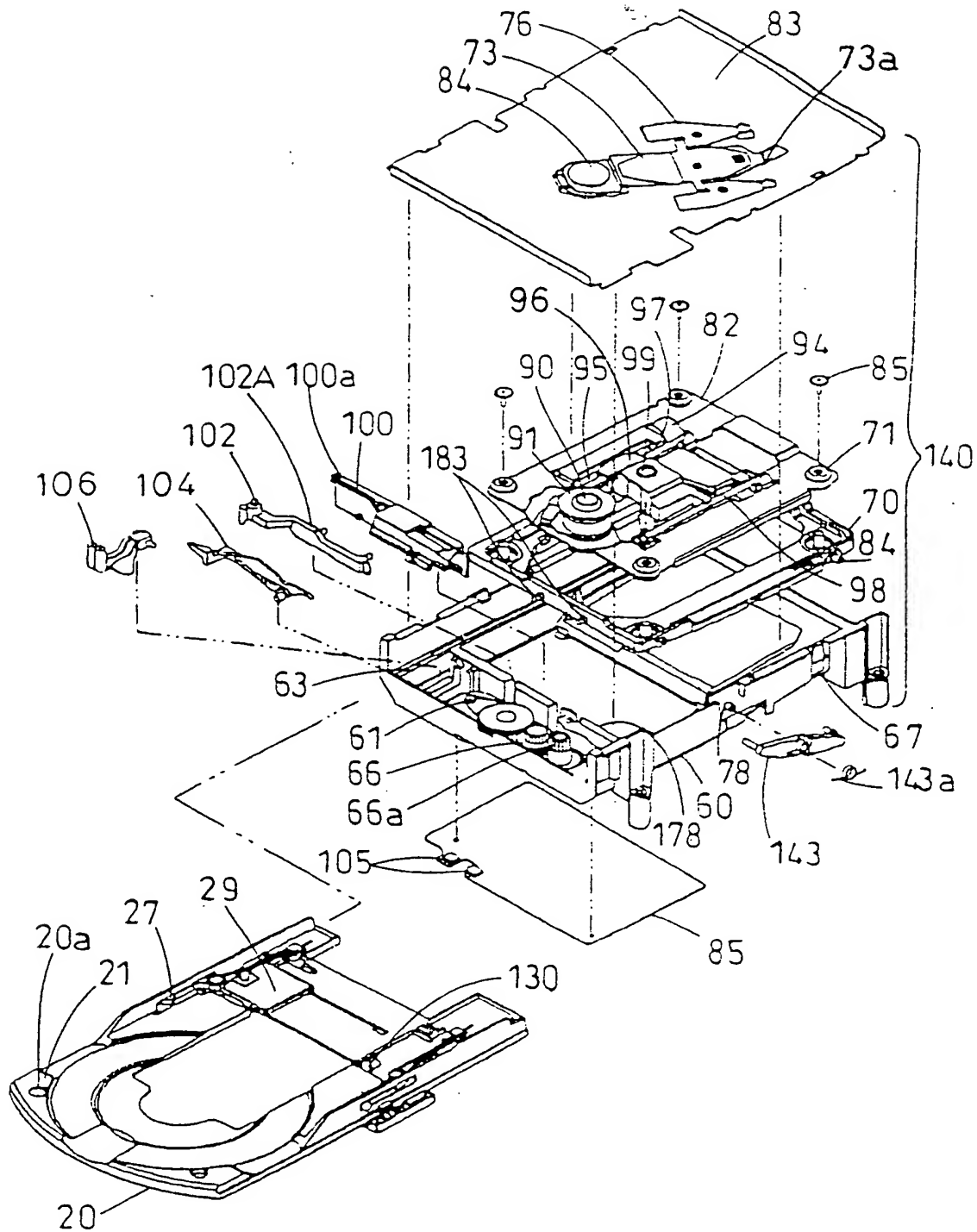


FIG. 2

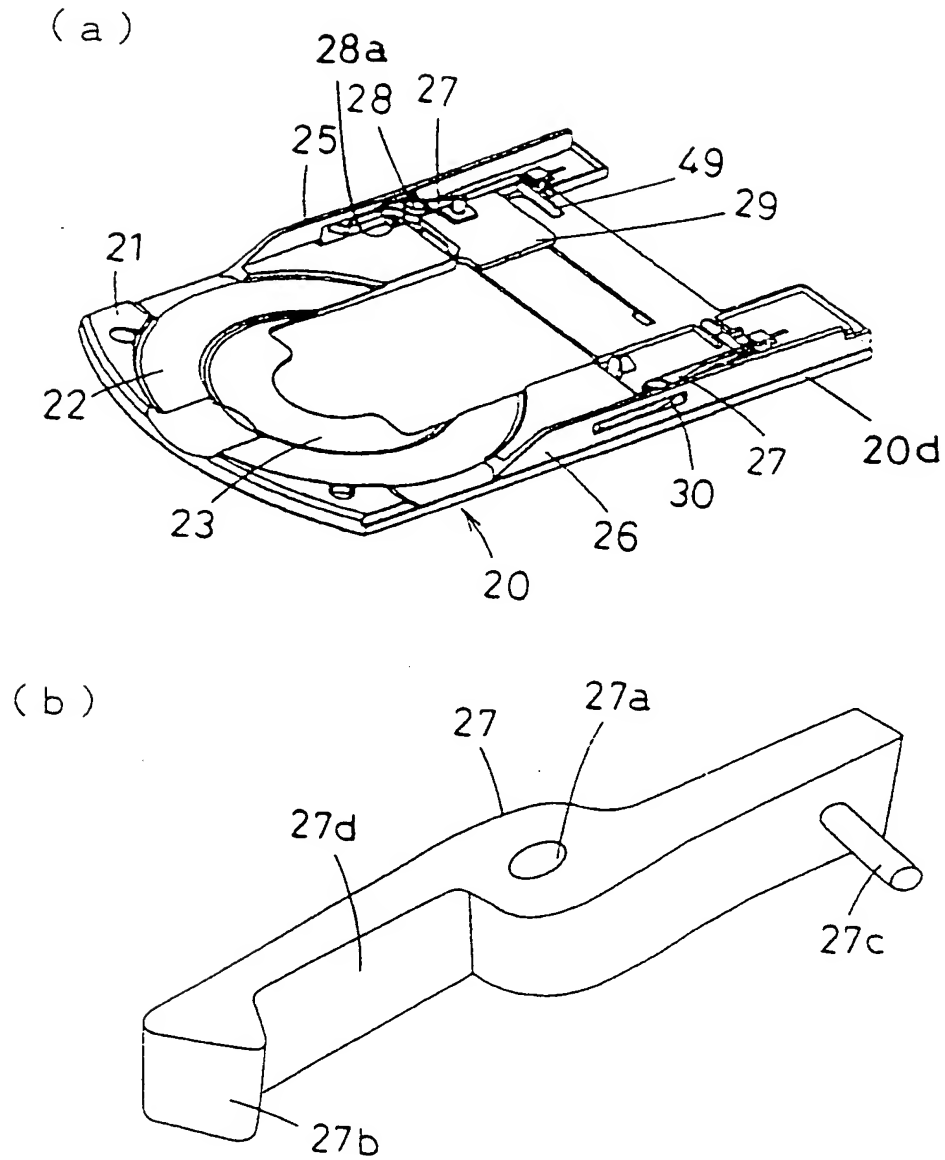


FIG. 3

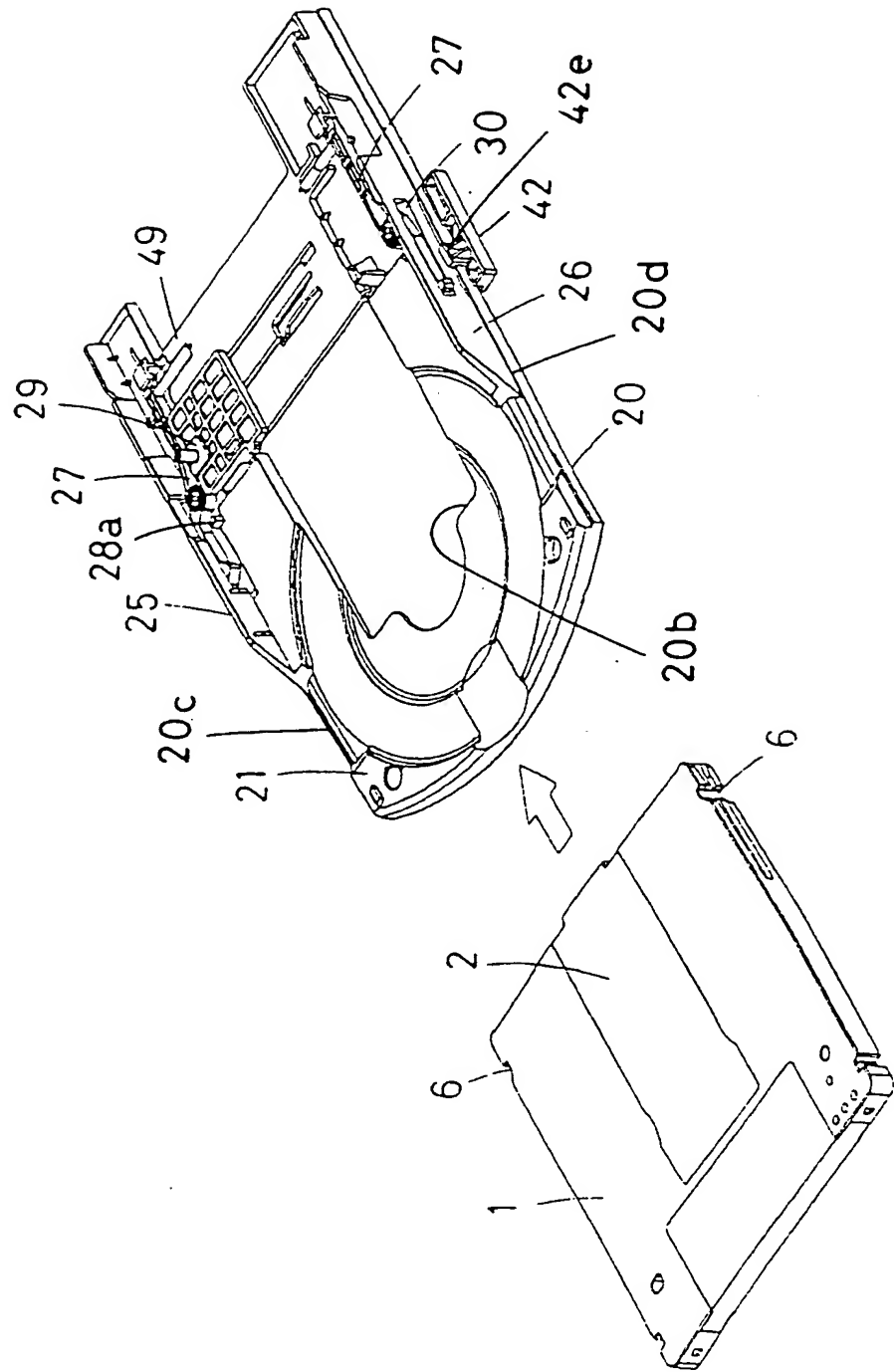


FIG. 5

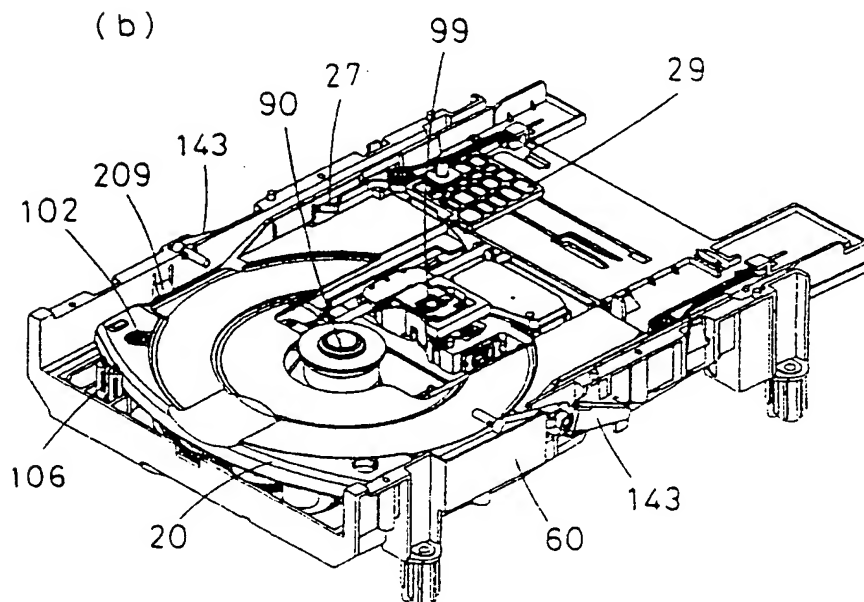
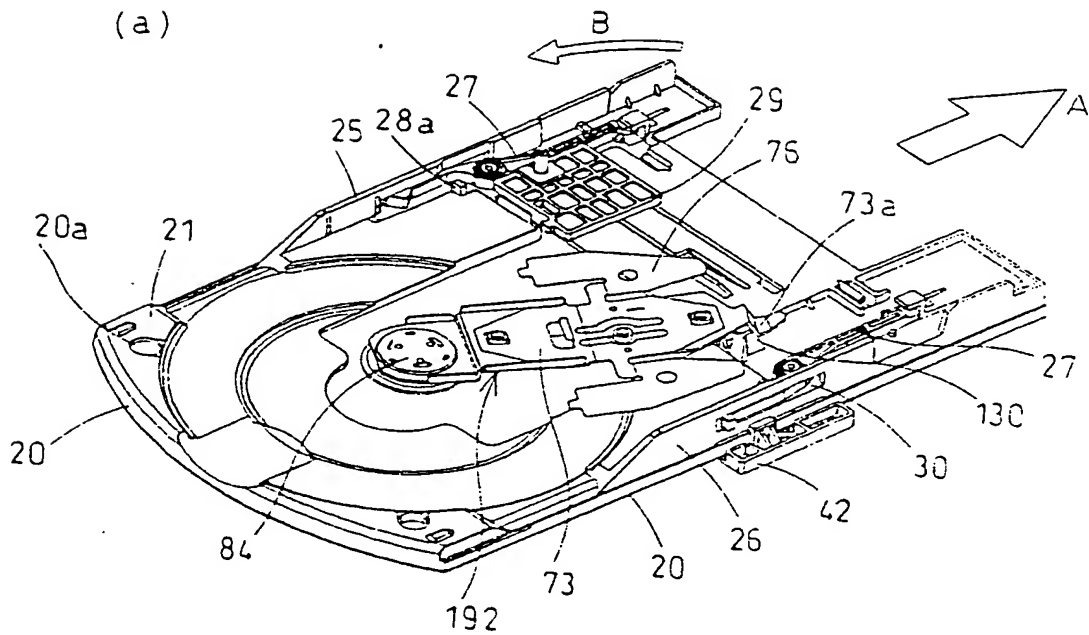


FIG. 6

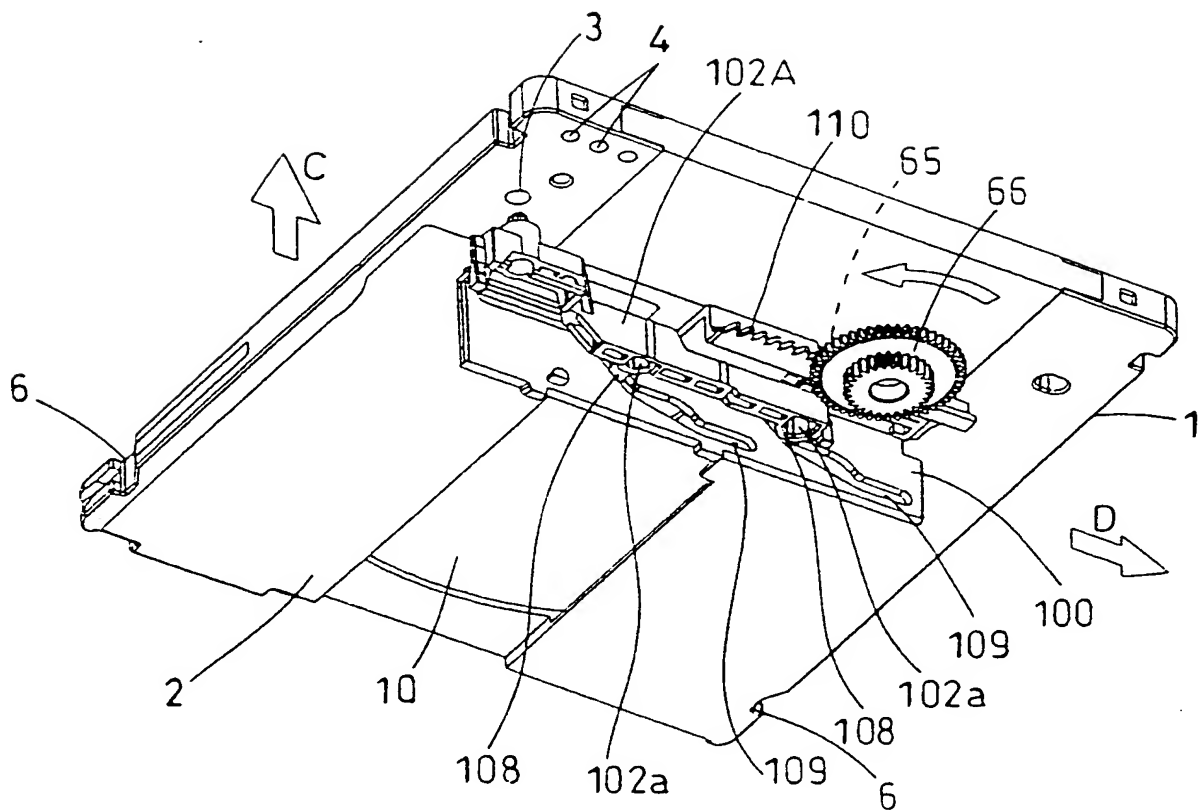
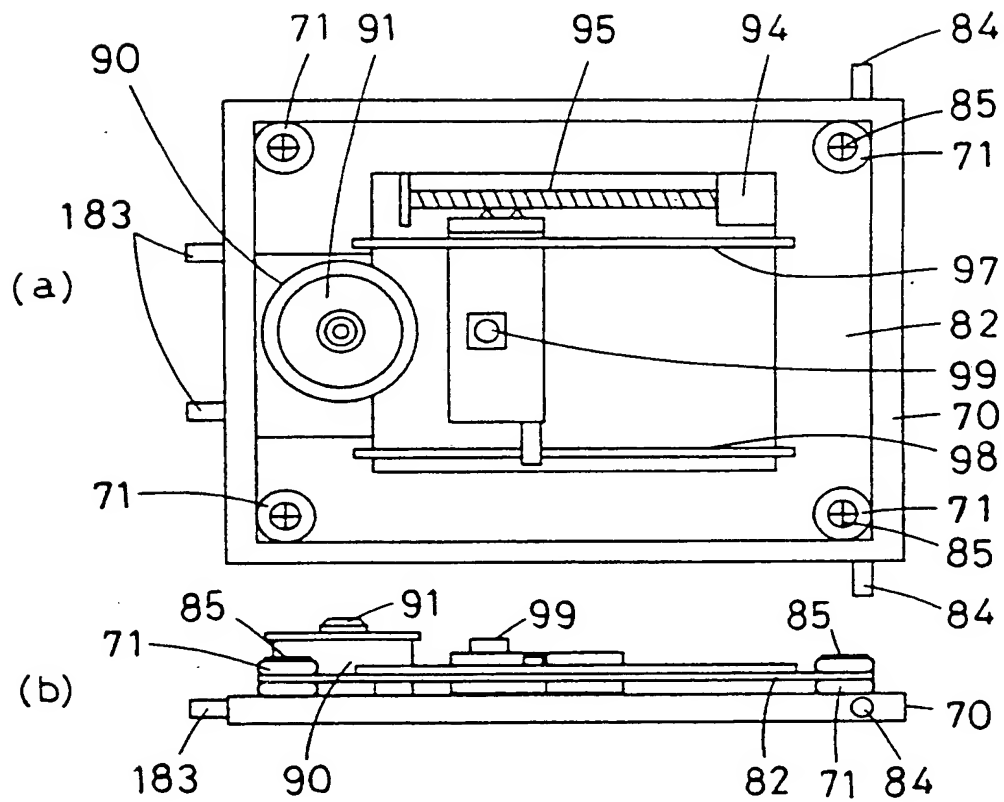
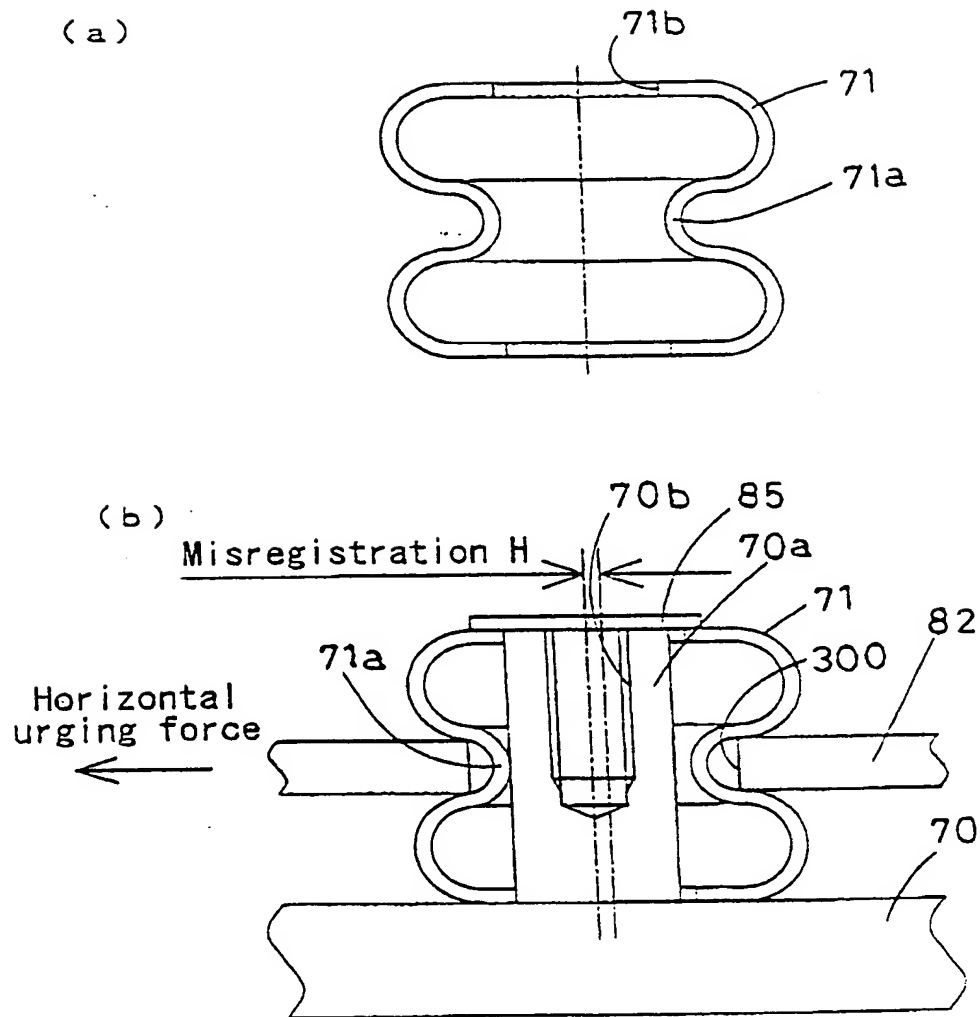


FIG. 7



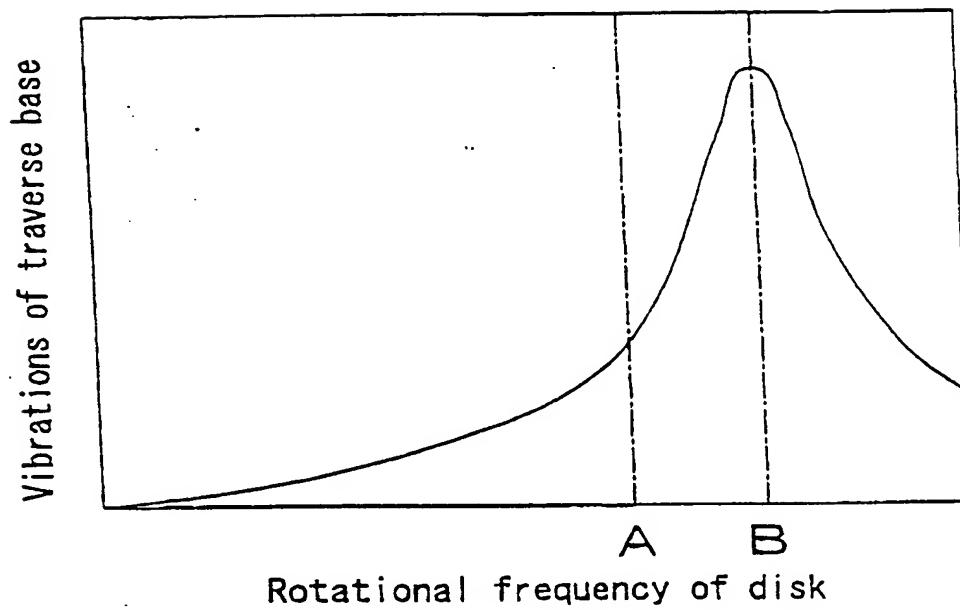
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FIG. 8



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F I G. 9



A : Maximum rotational frequency
B : Primary resonance frequency

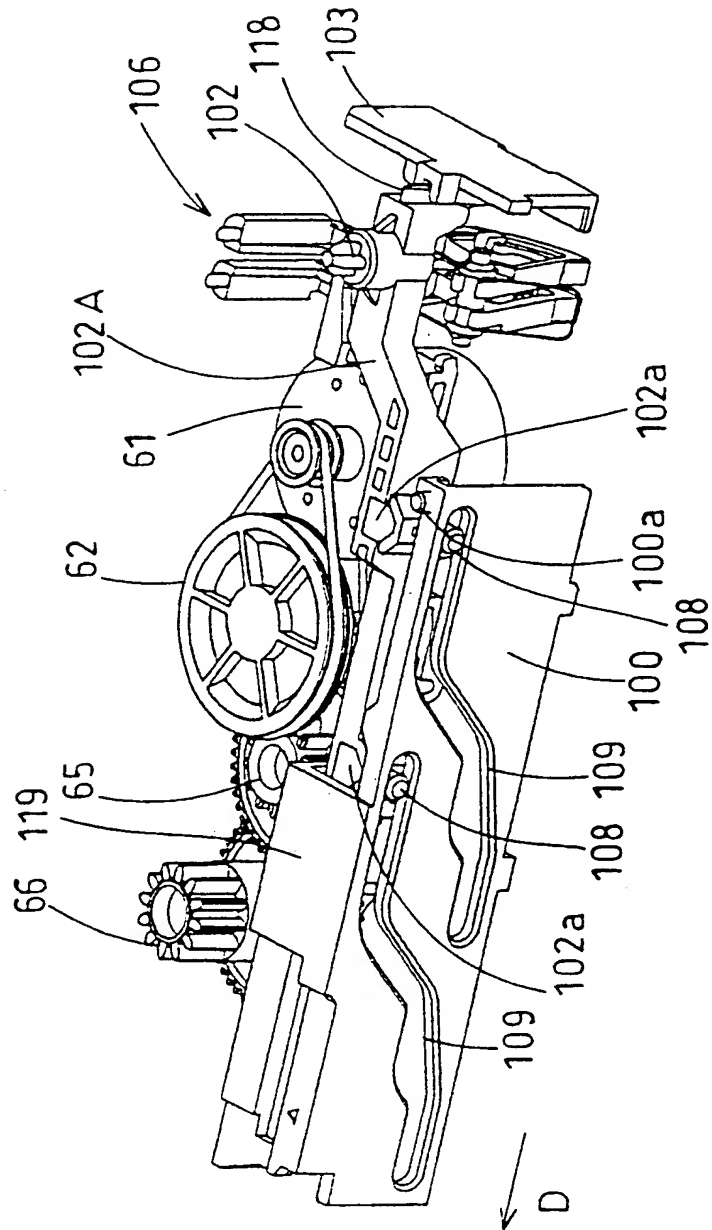
$$\frac{10}{70}$$


FIG. 11

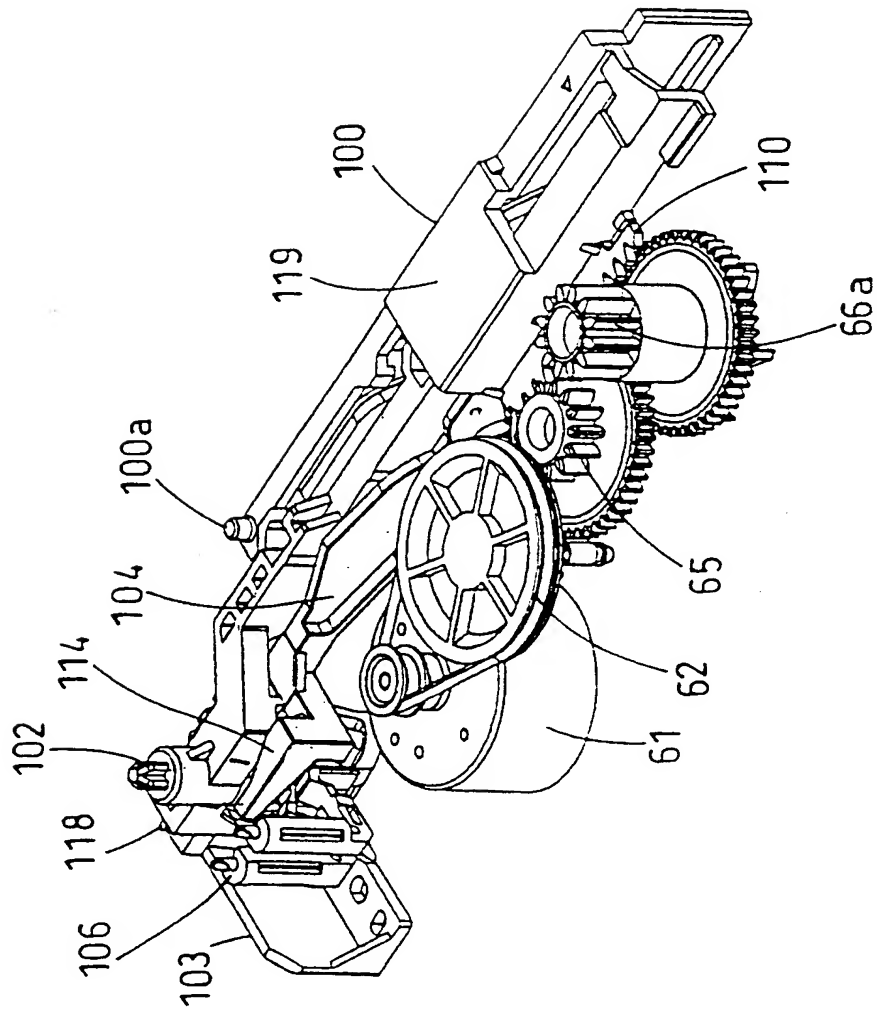


FIG. 12

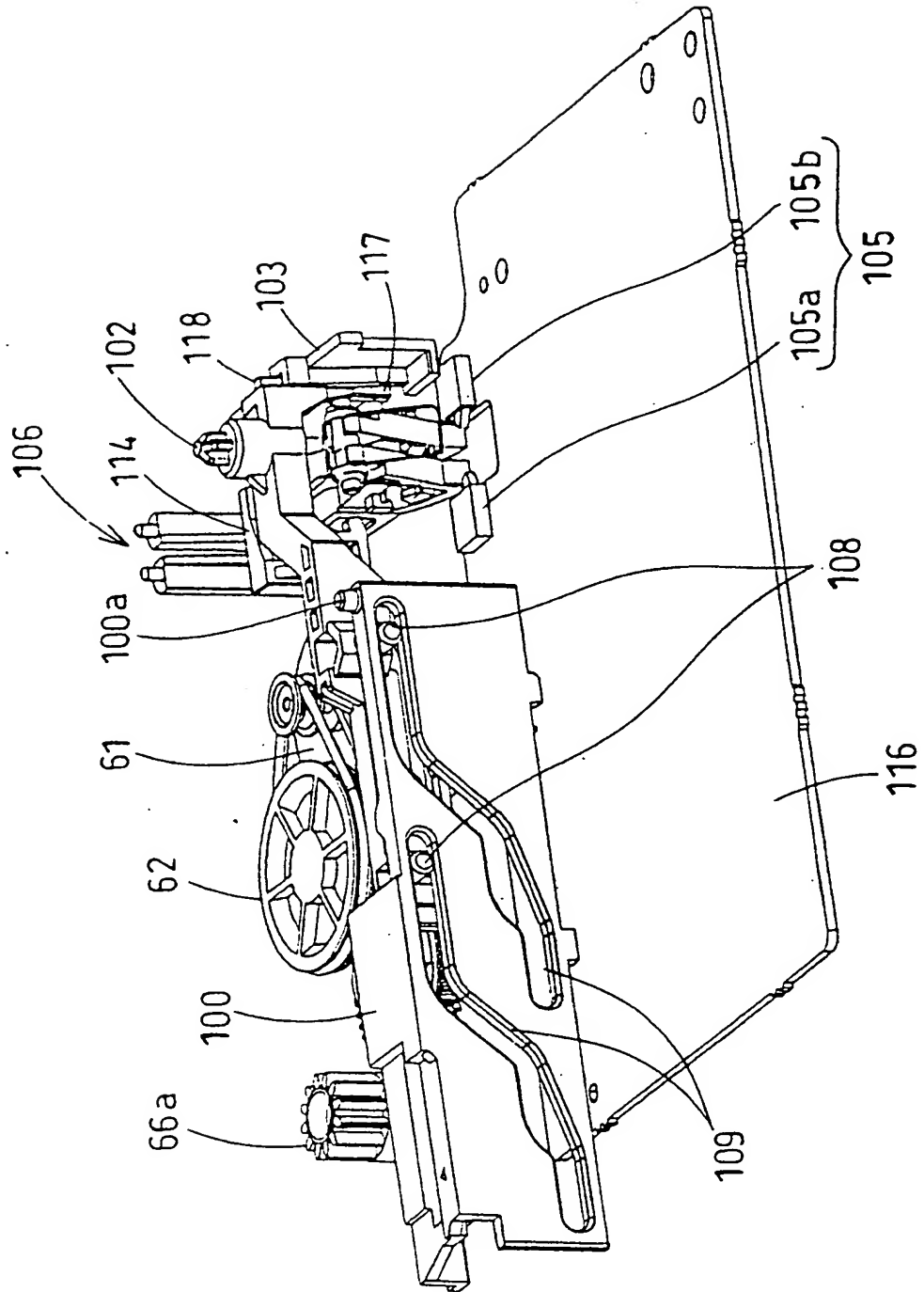


FIG. 1 3

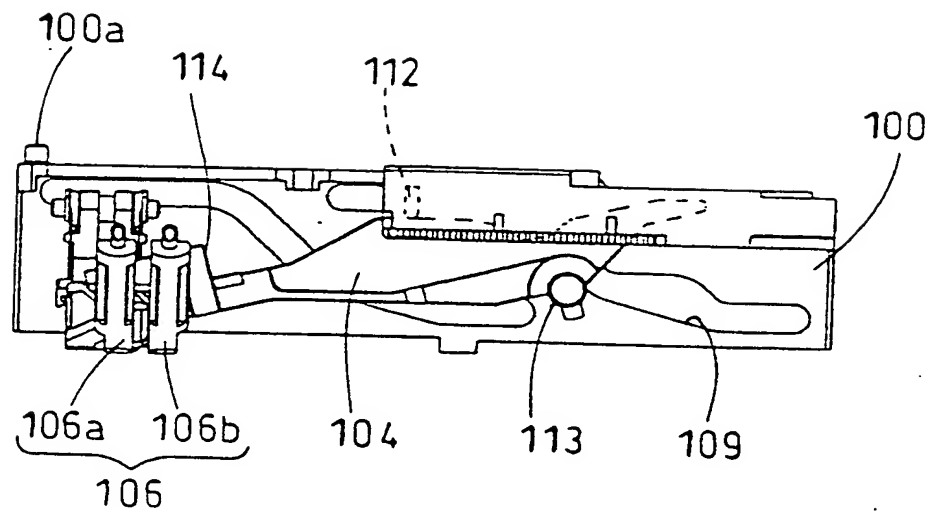


FIG. 1 4

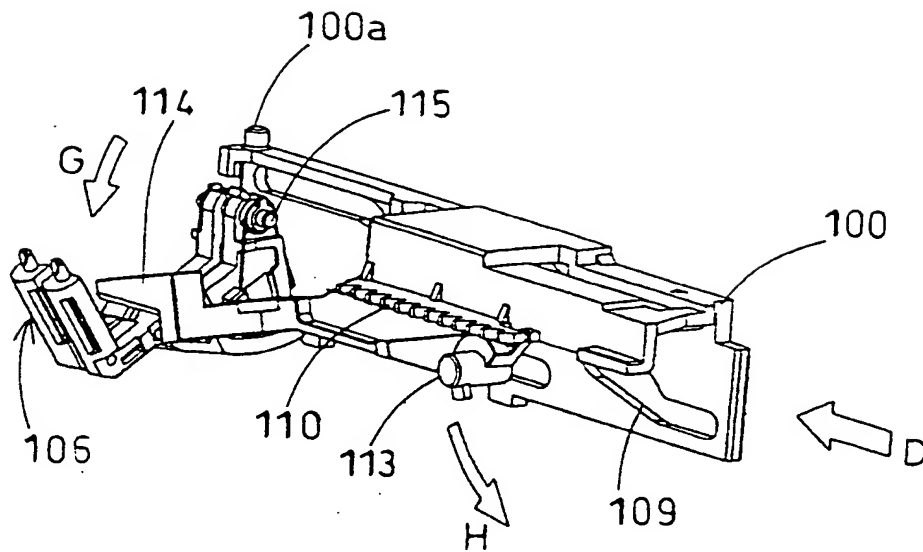


FIG. 1 5

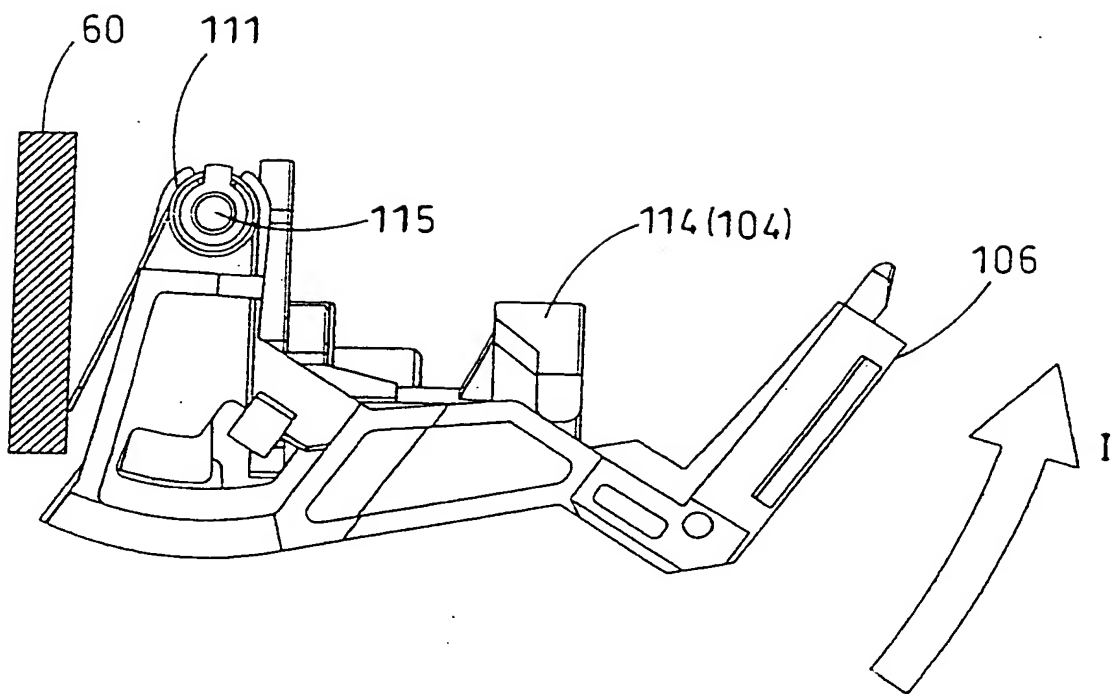


FIG. 16

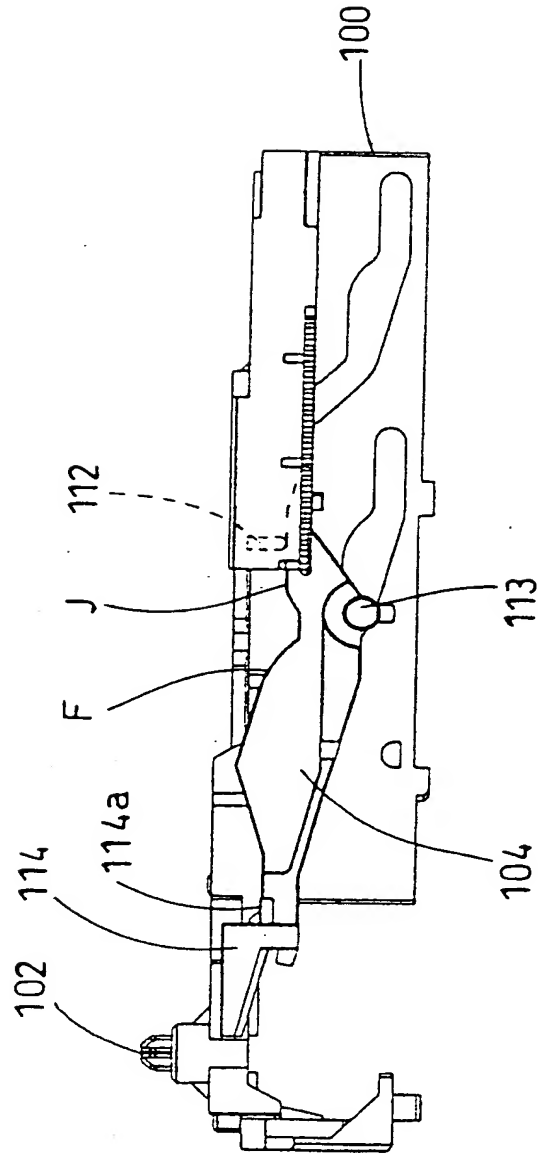


FIG. 17

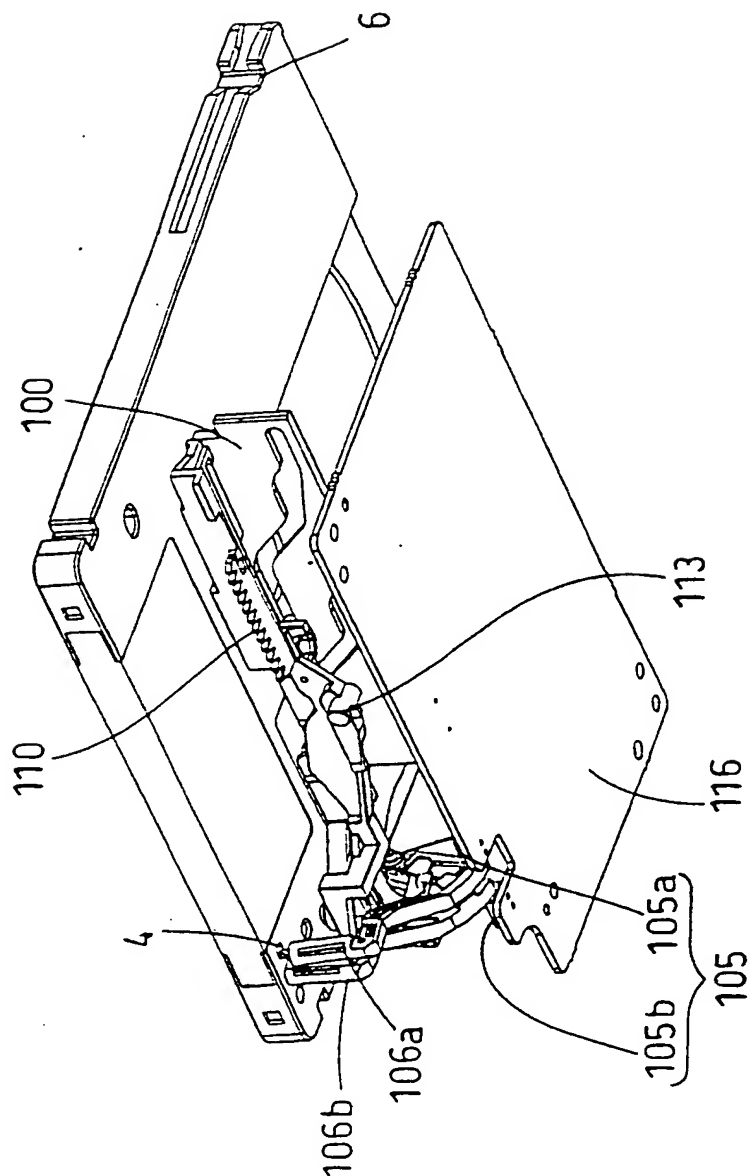


FIG. 18

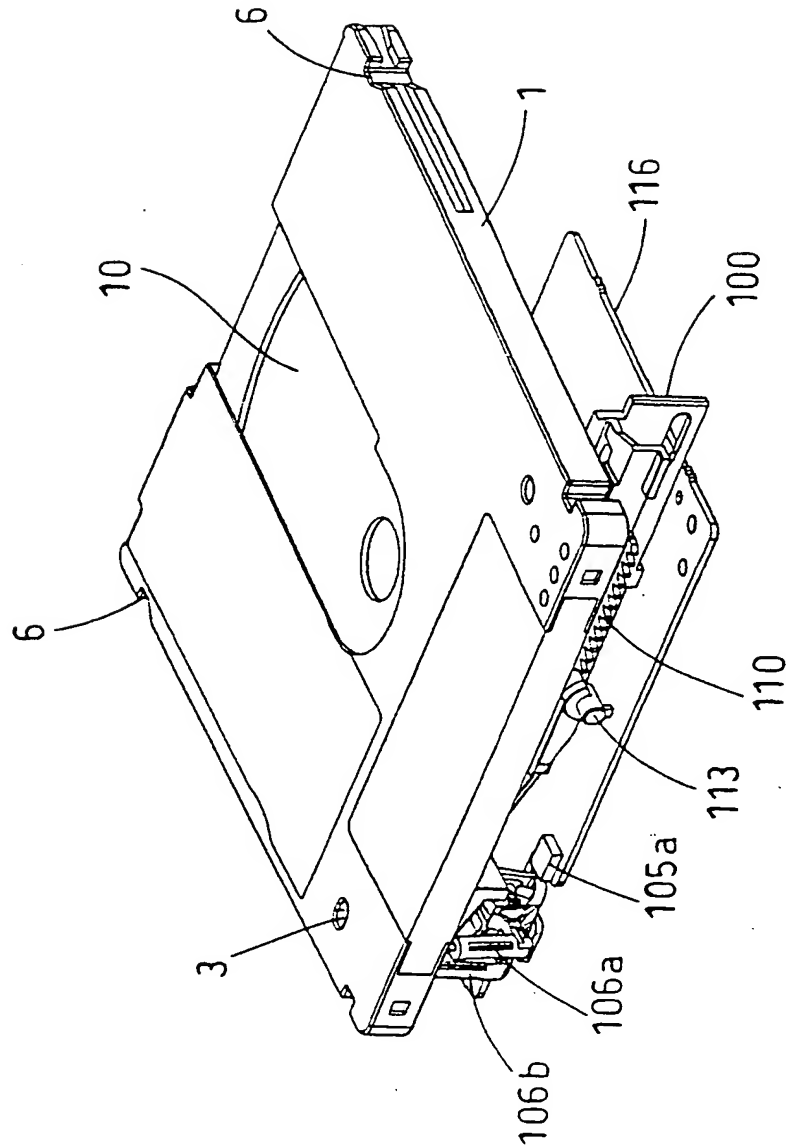


FIG. 19

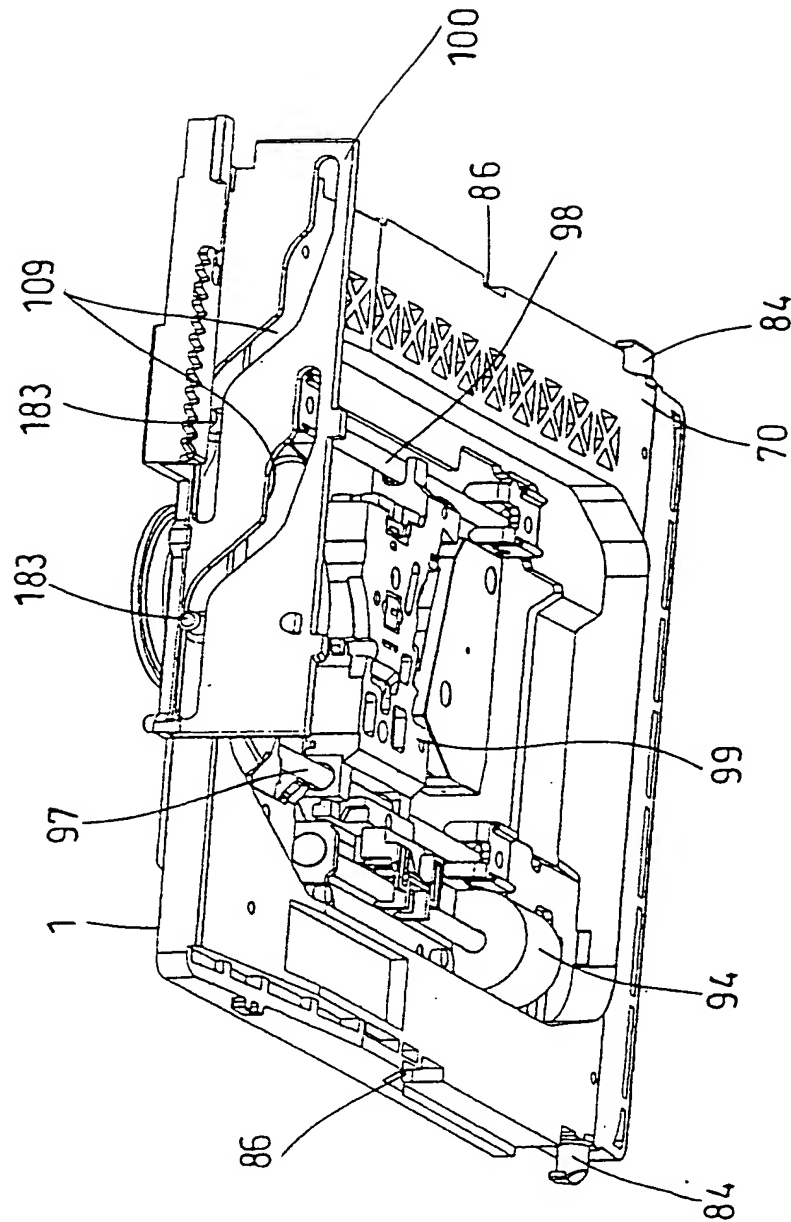


FIG. 20

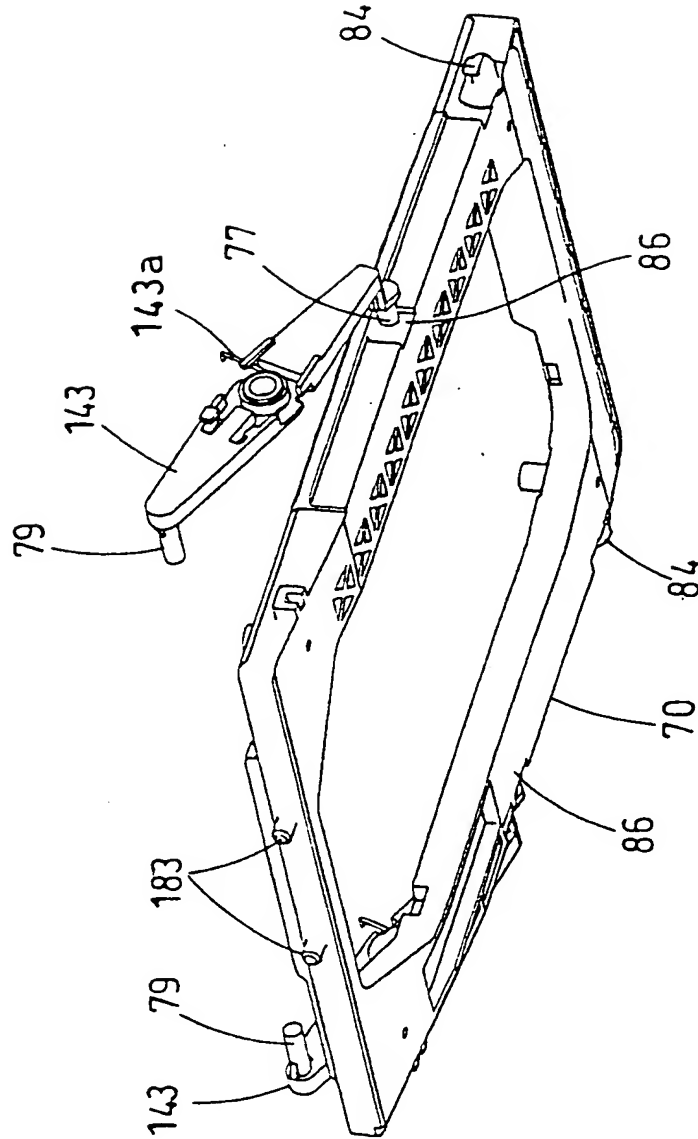


FIG. 2 1

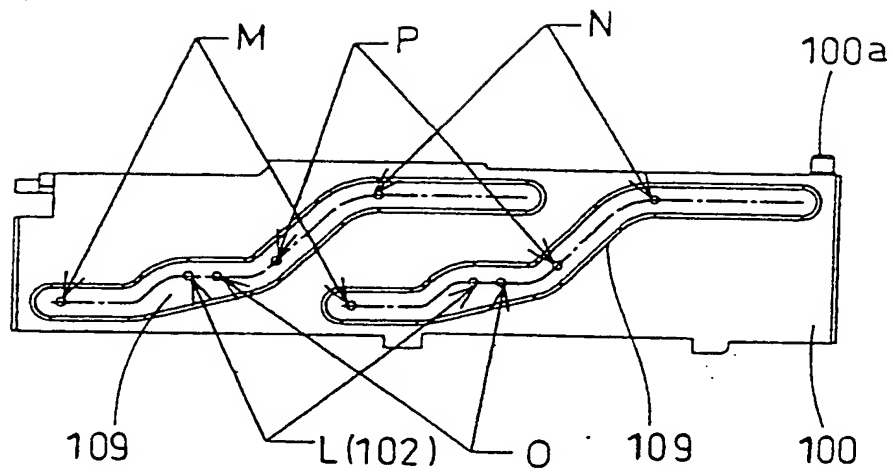


FIG. 2 2

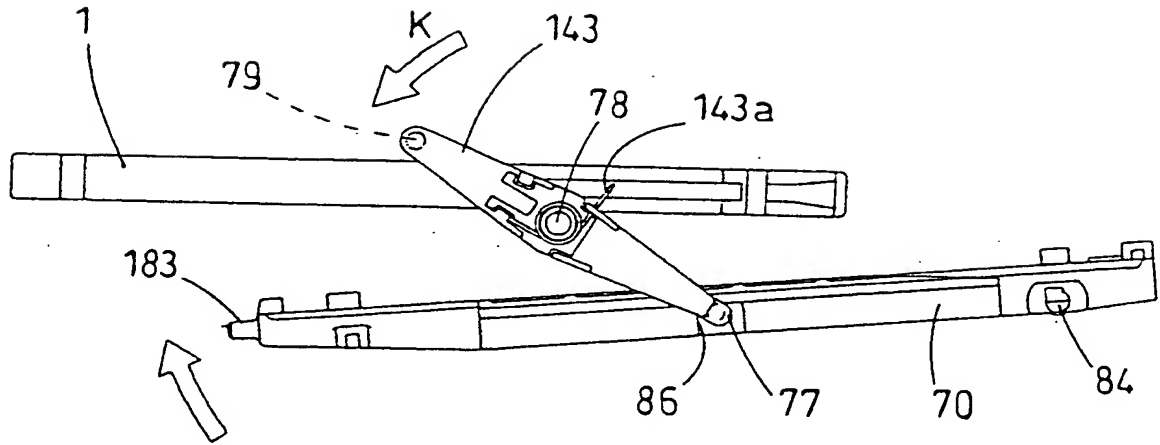


FIG. 2 3

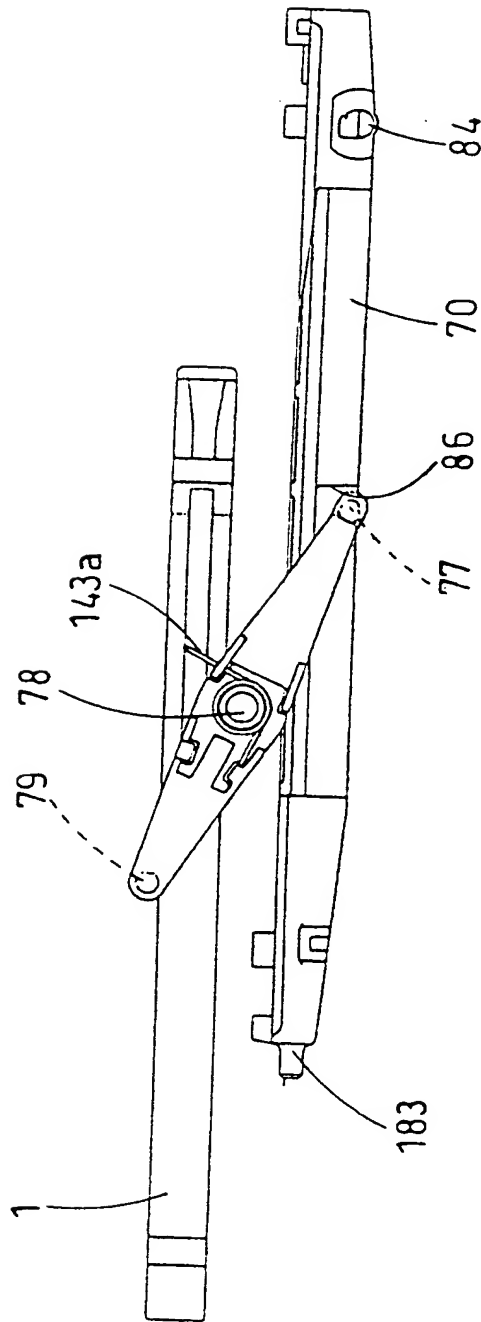
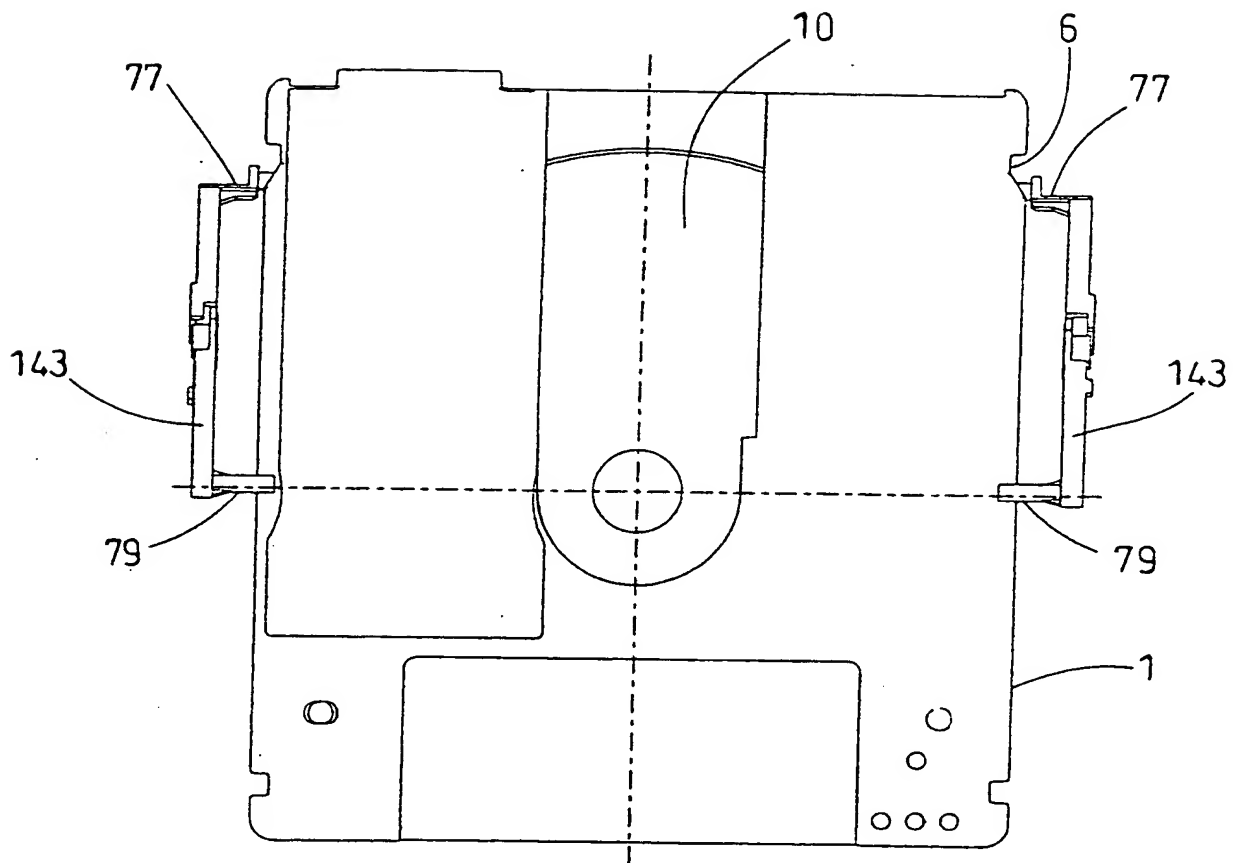


FIG. 2 4



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FIG. 25

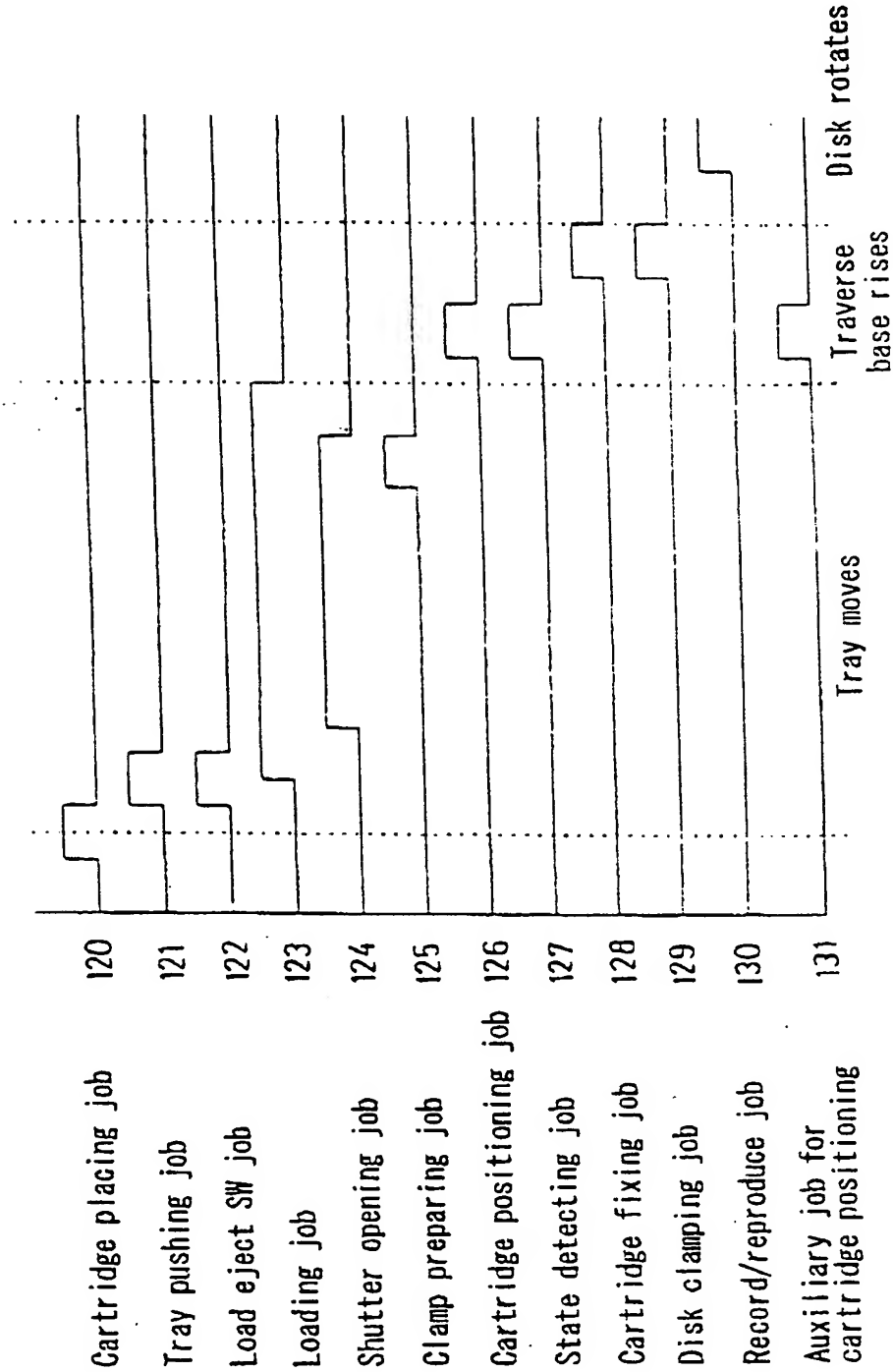


FIG. 2 6

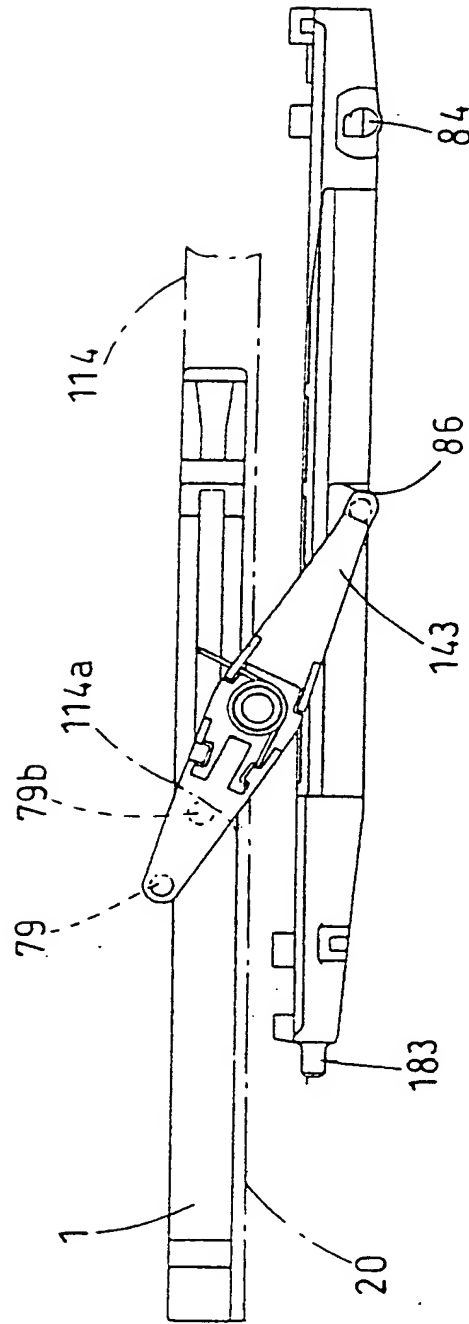


FIG. 2 7

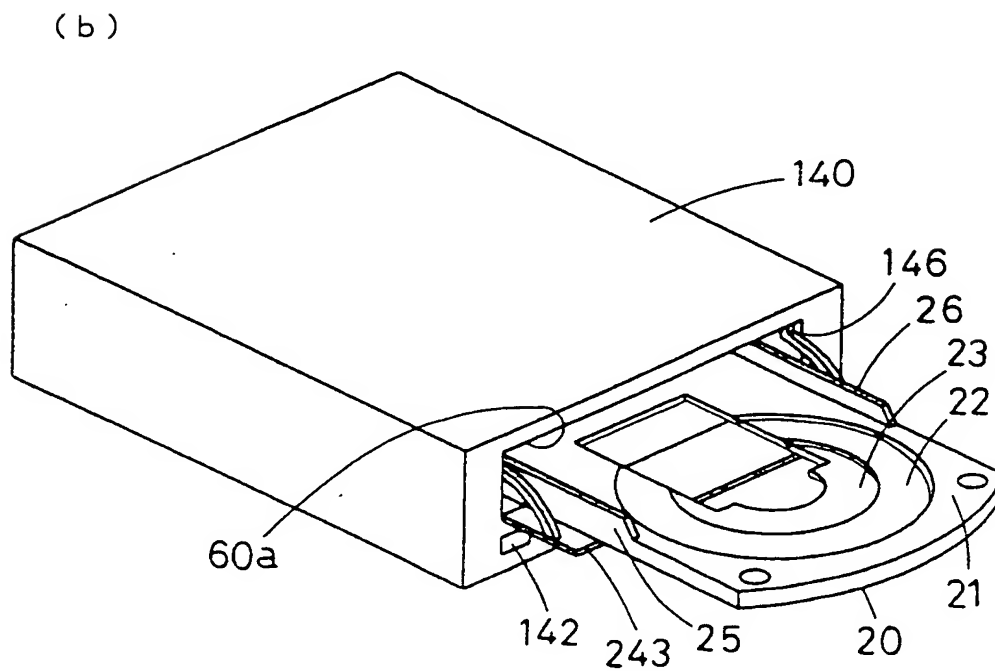
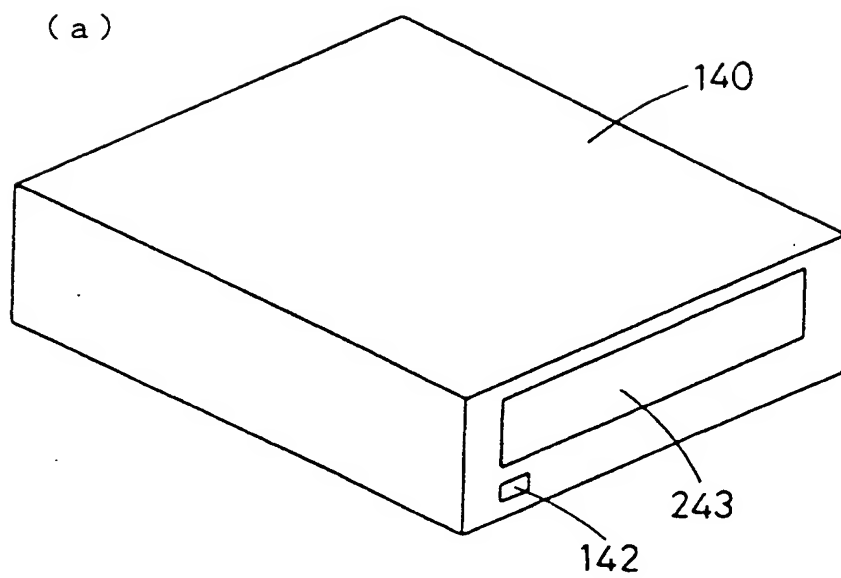


FIG. 2 8

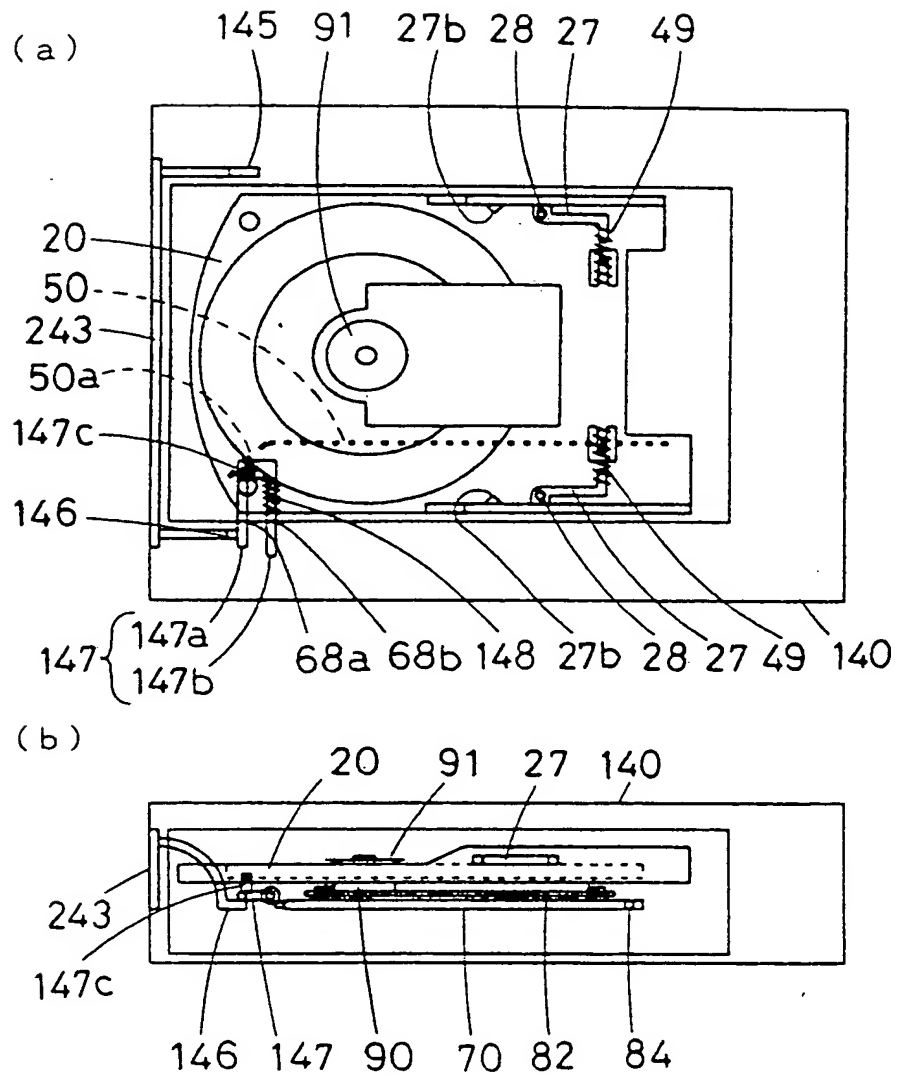


FIG. 29

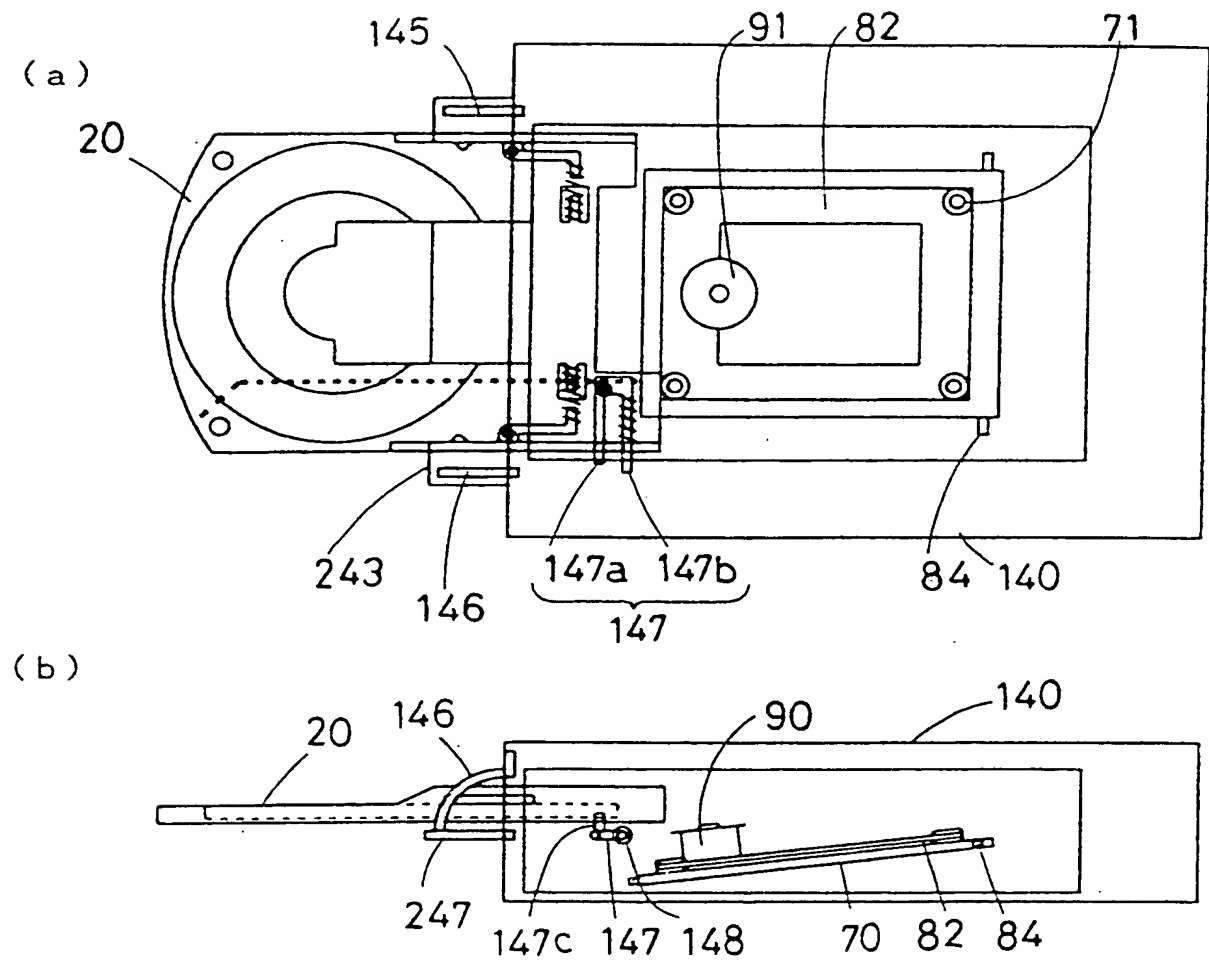
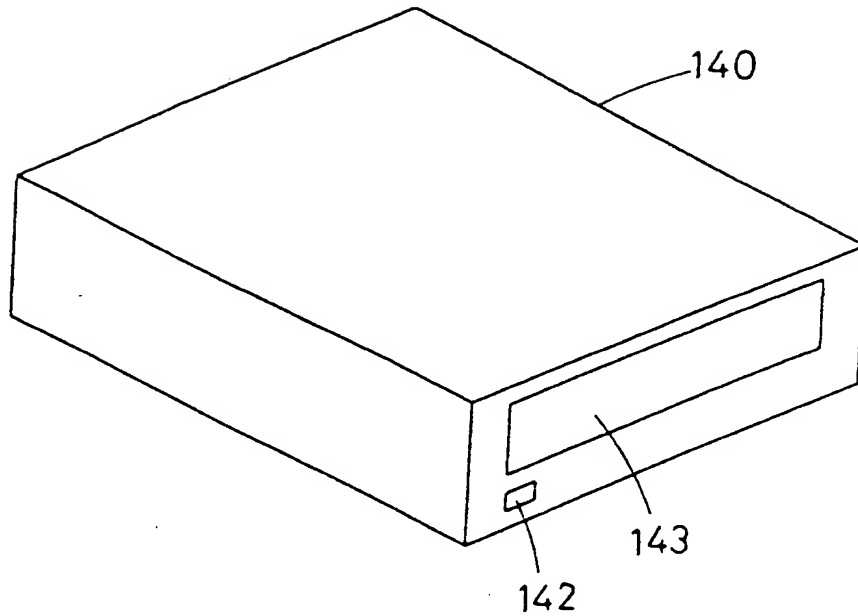


FIG. 30

(a)



(b)

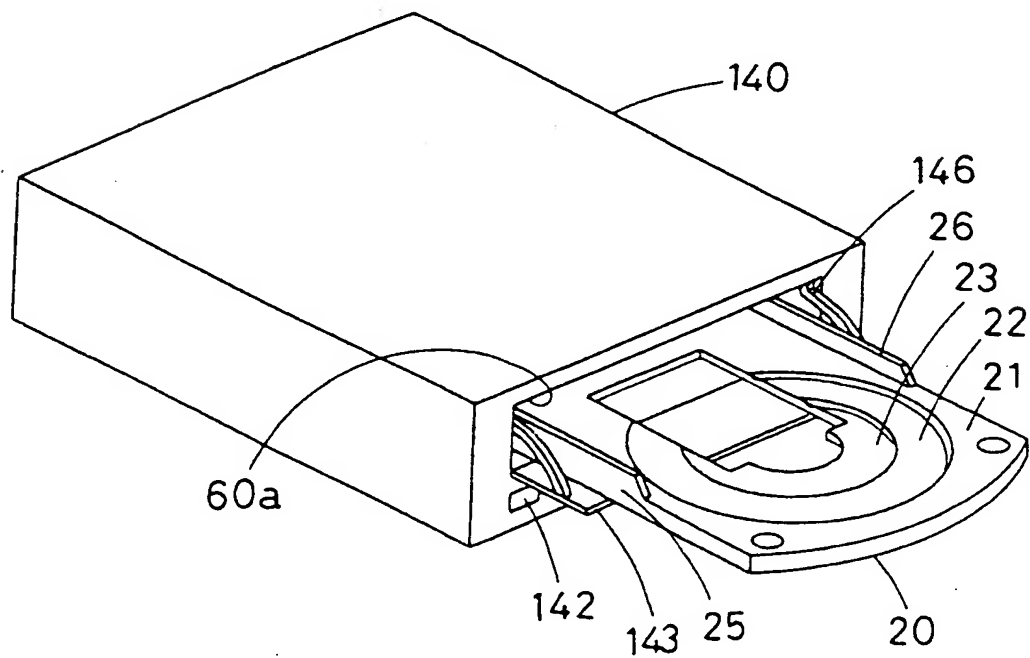


FIG. 3 1

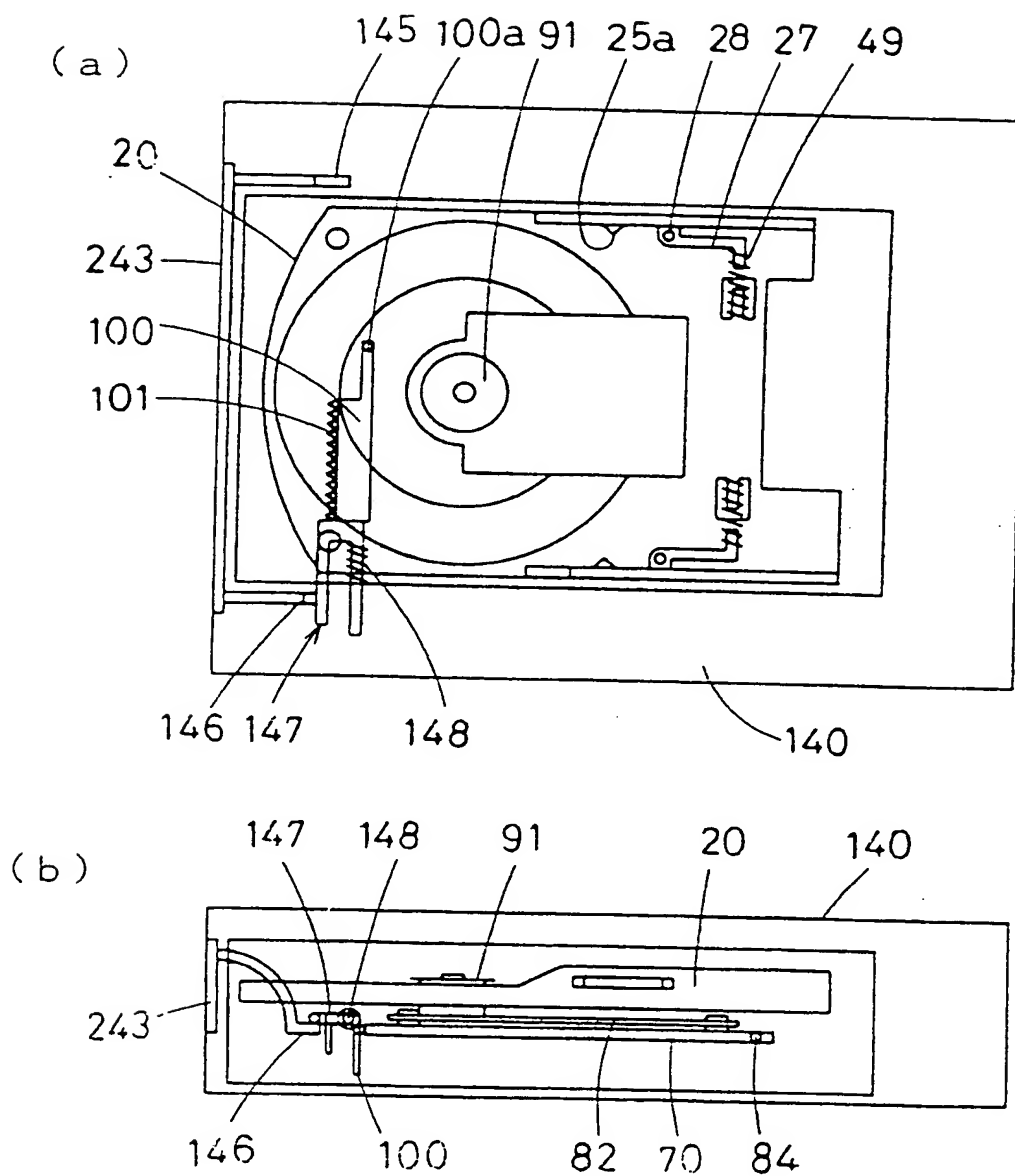


FIG. 3 2

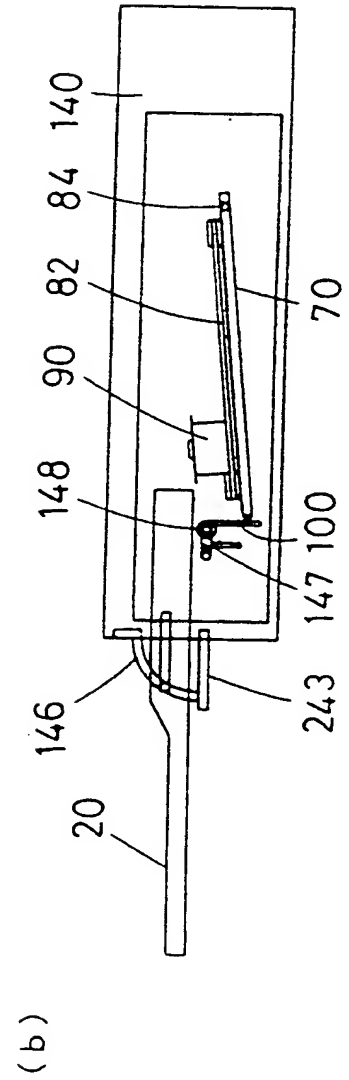
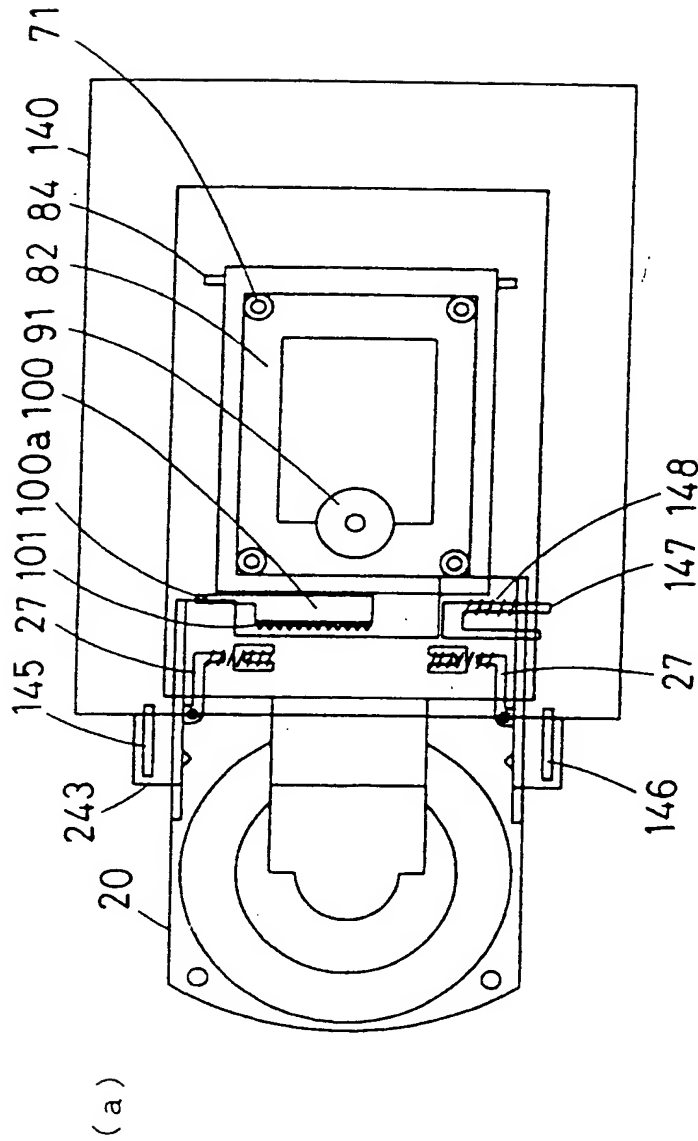
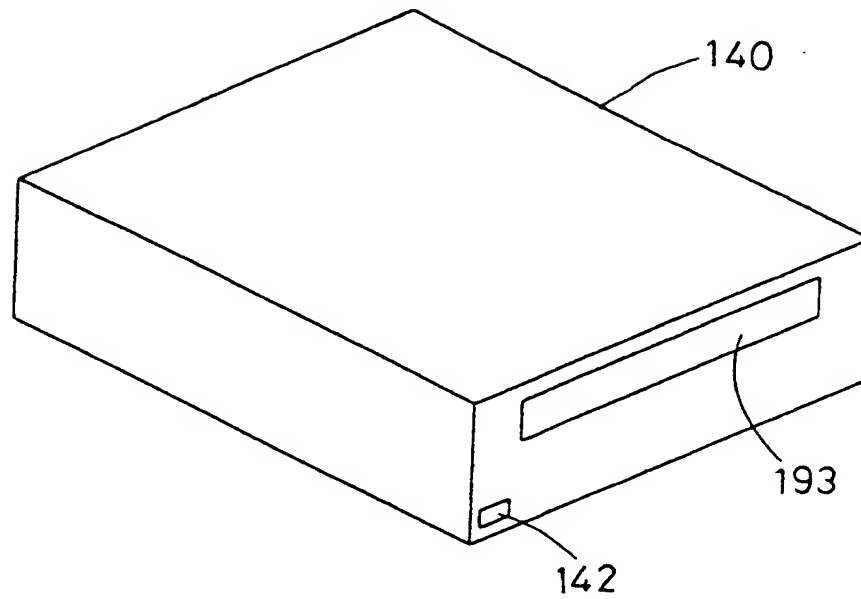


FIG. 3 3

(a)



(b)

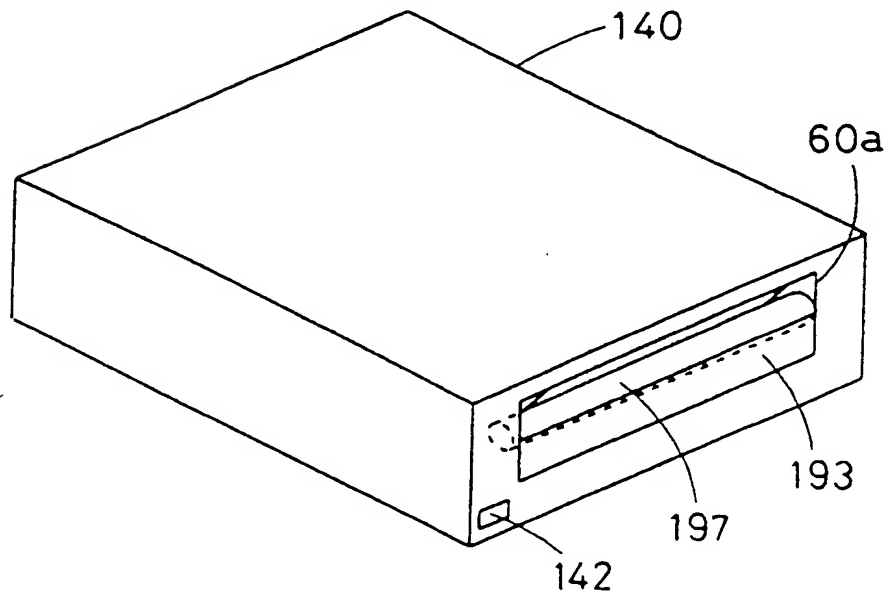


FIG. 3 4

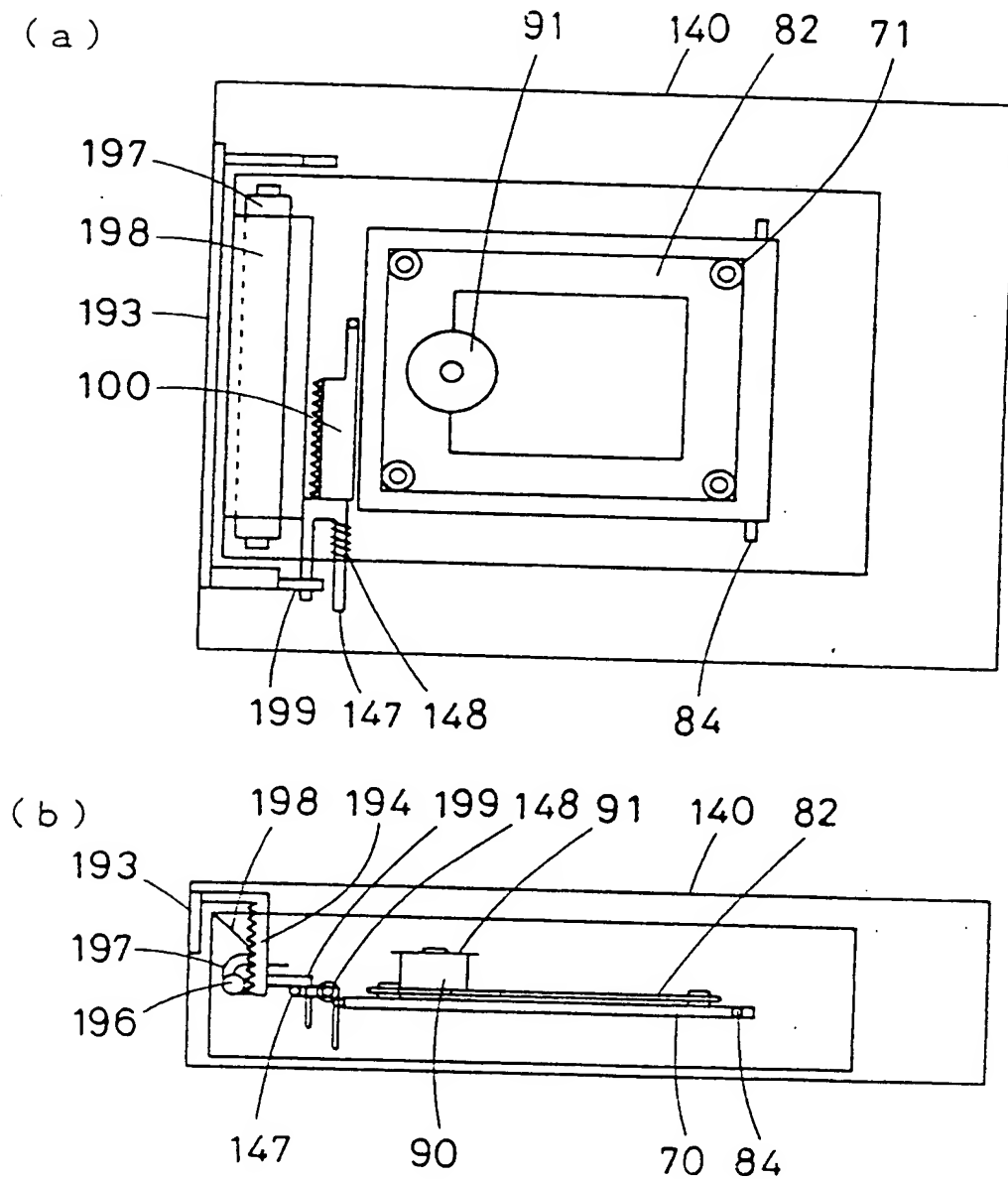
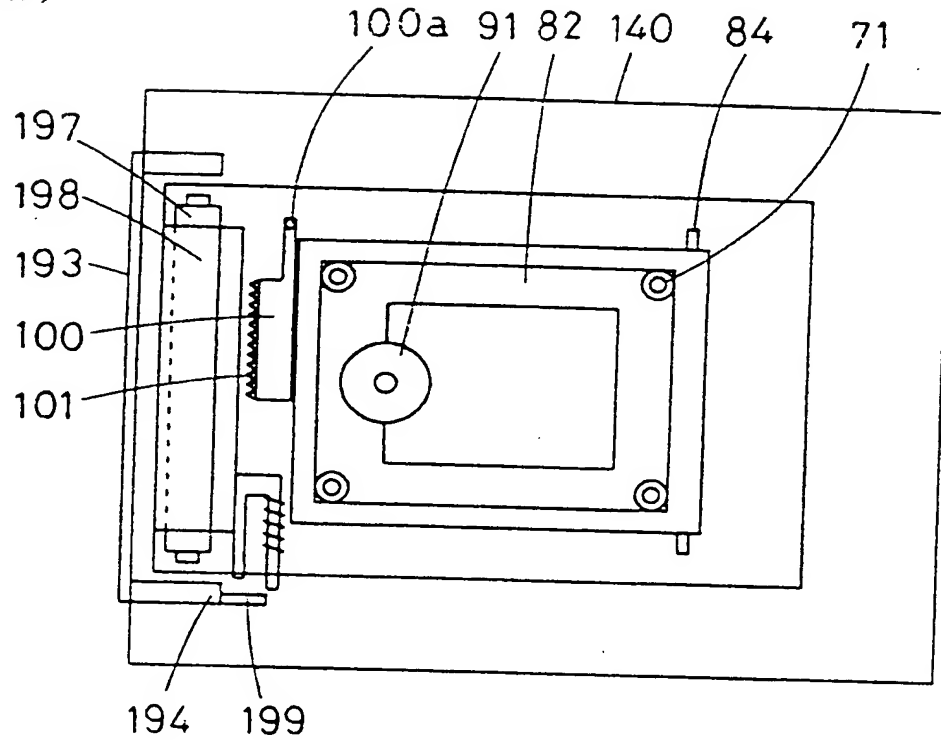


FIG. 3 5

(a)



(b)

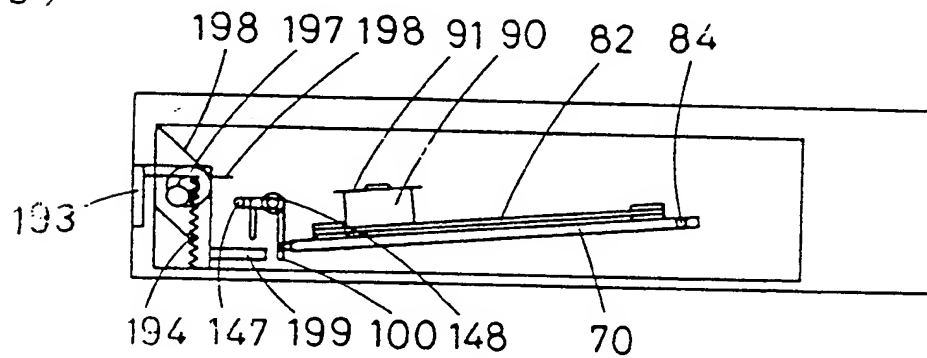


FIG. 3 6

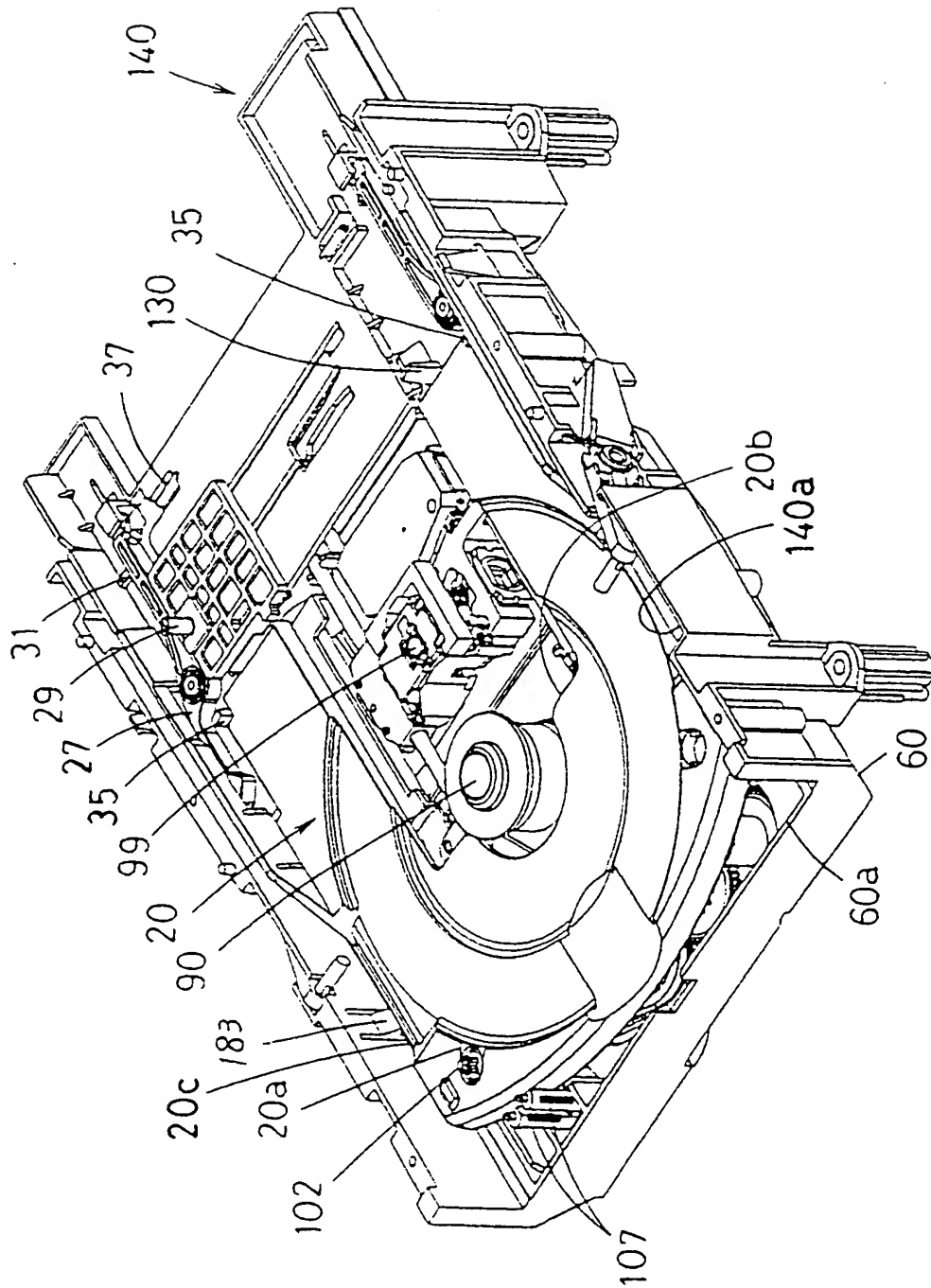


FIG. 37

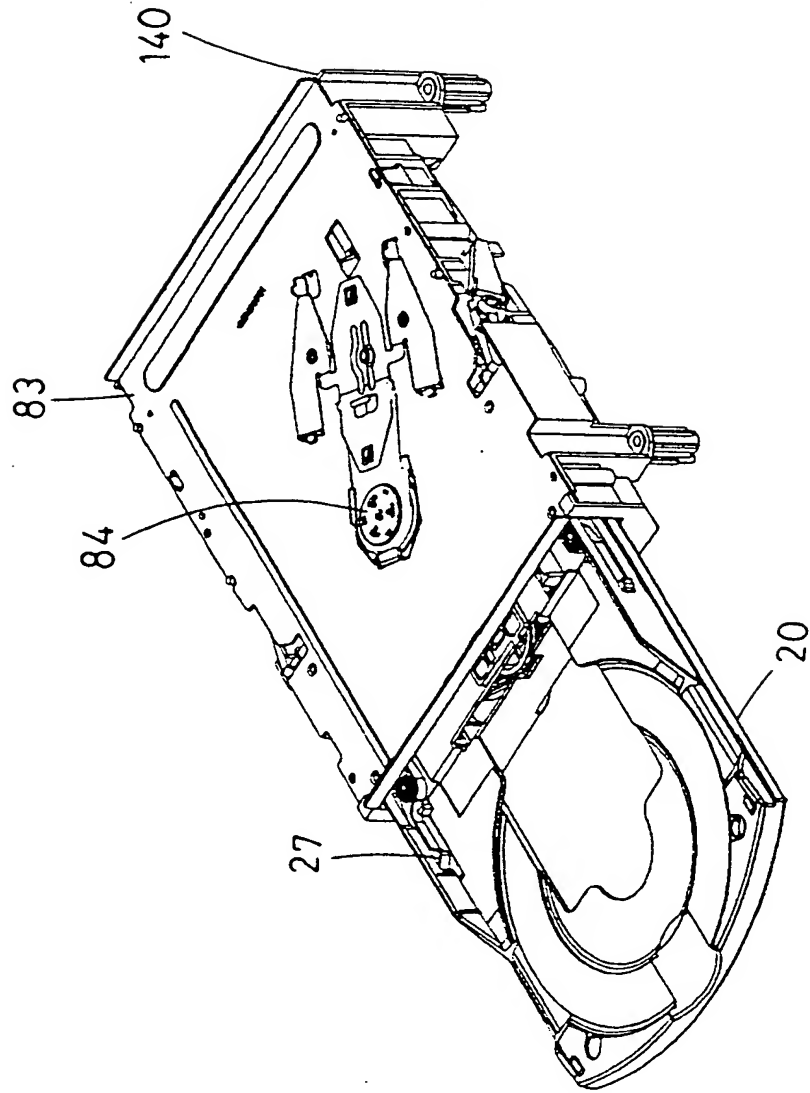


FIG. 3 8

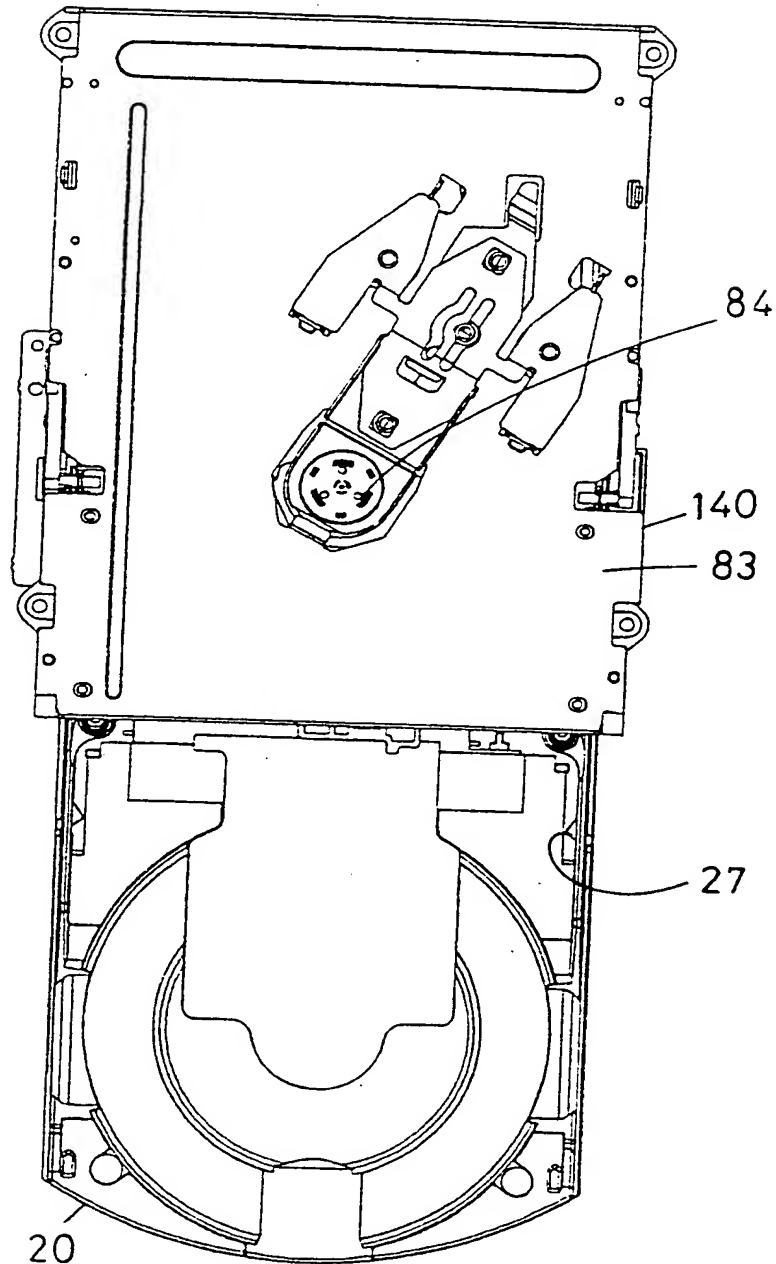
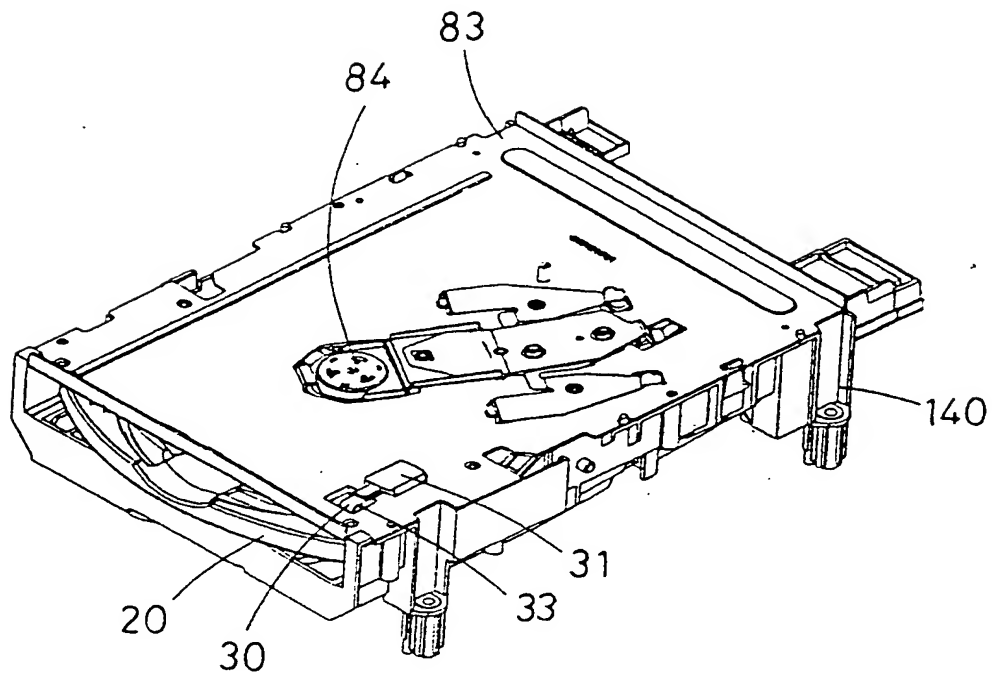


FIG. 3 9



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FIG. 40

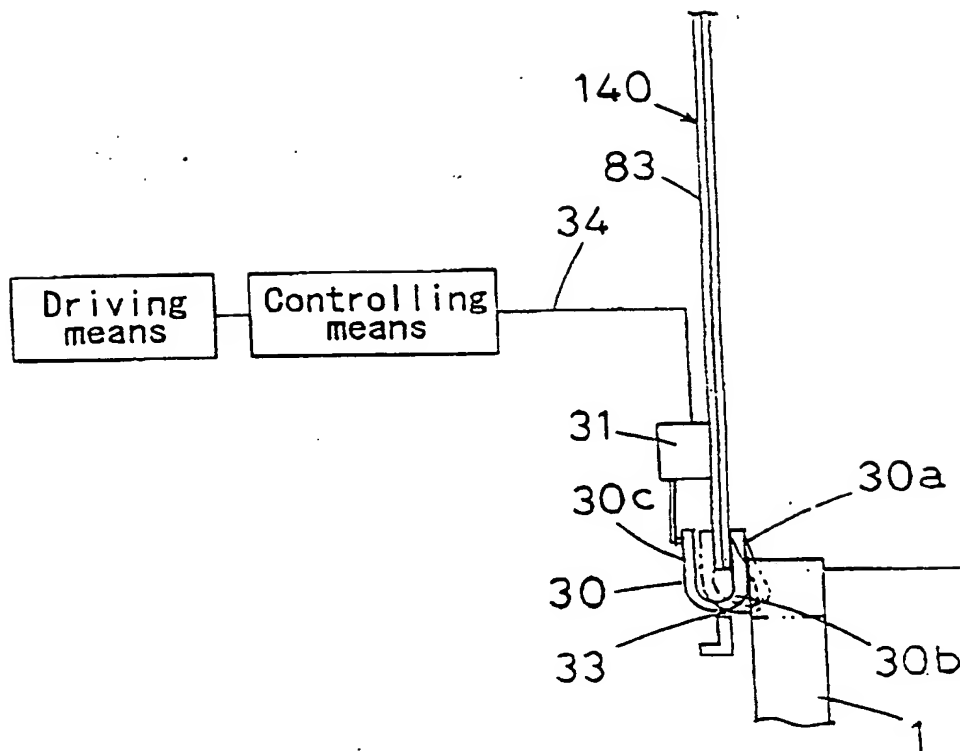


FIG. 4 1

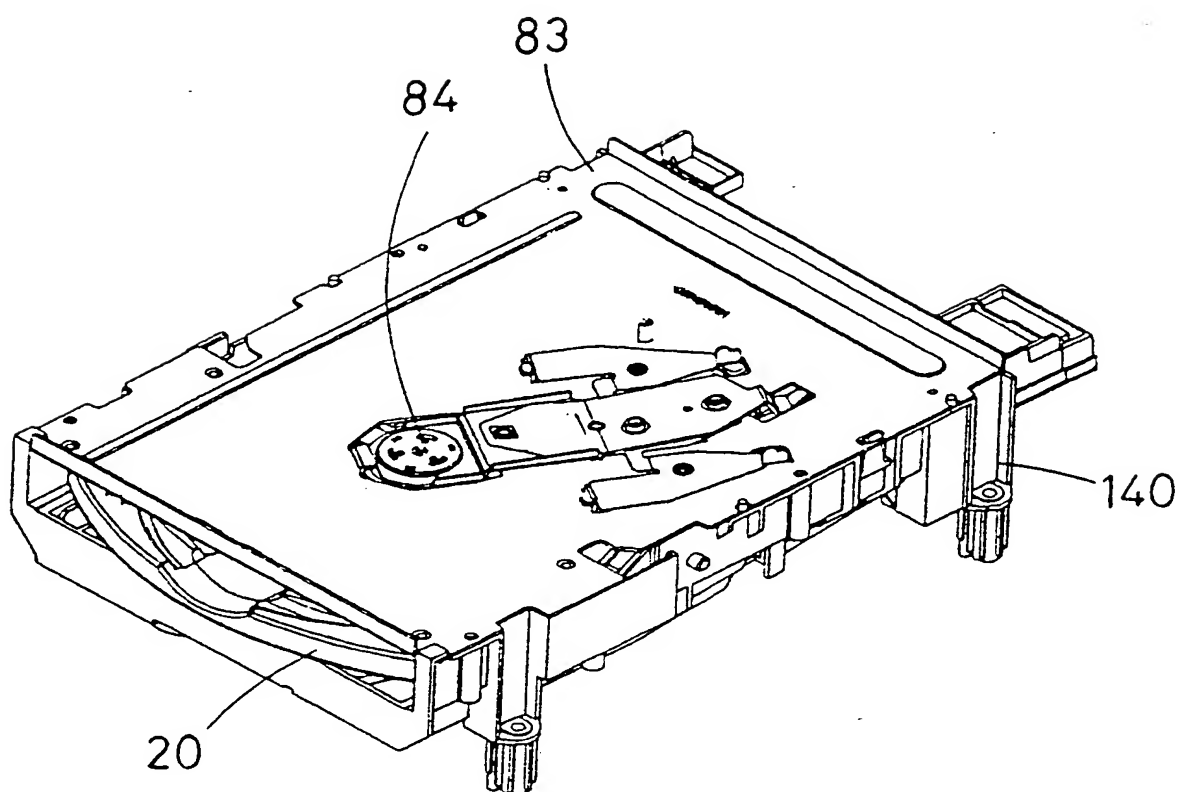


FIG. 4 2

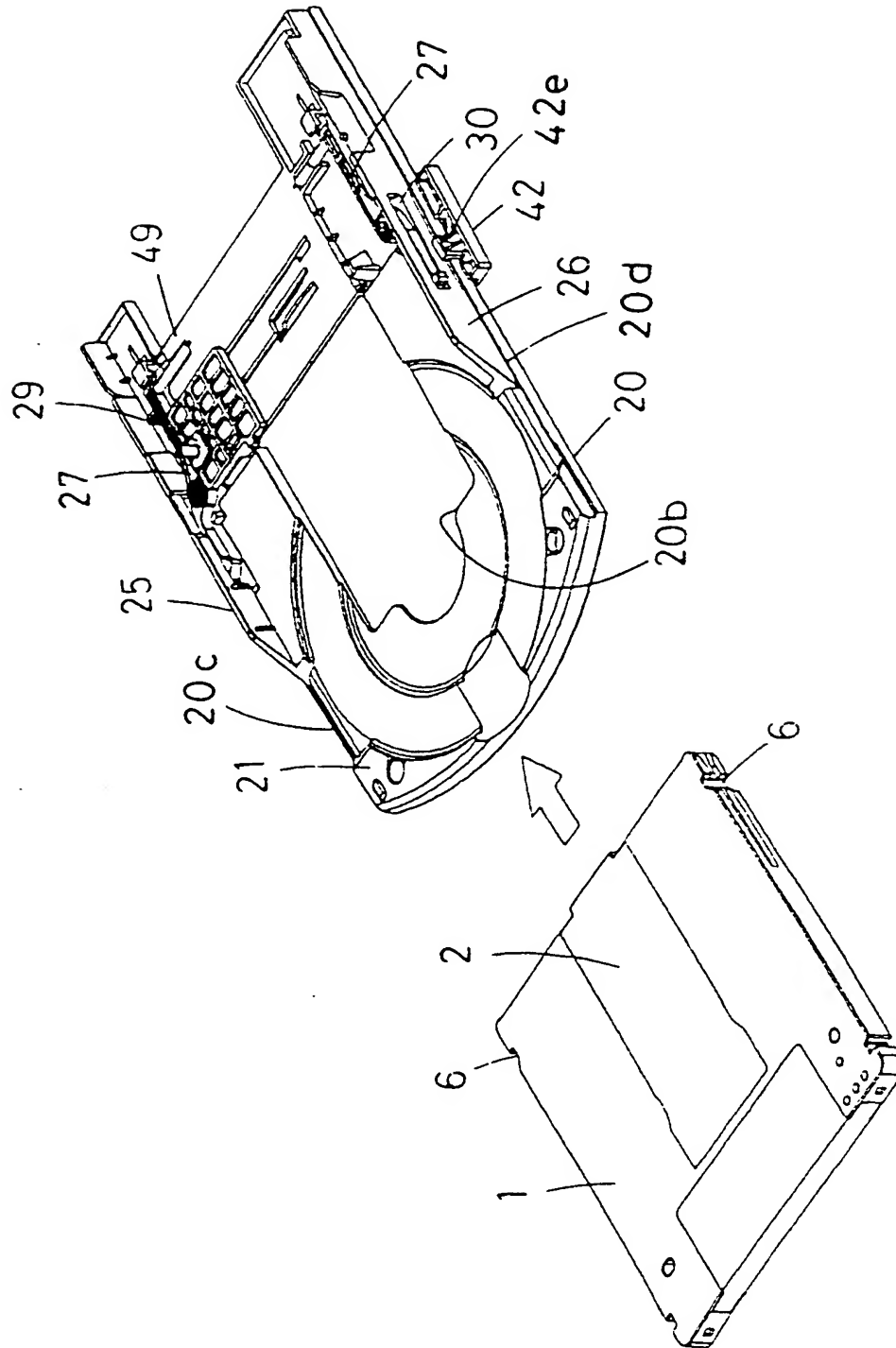


FIG. 43

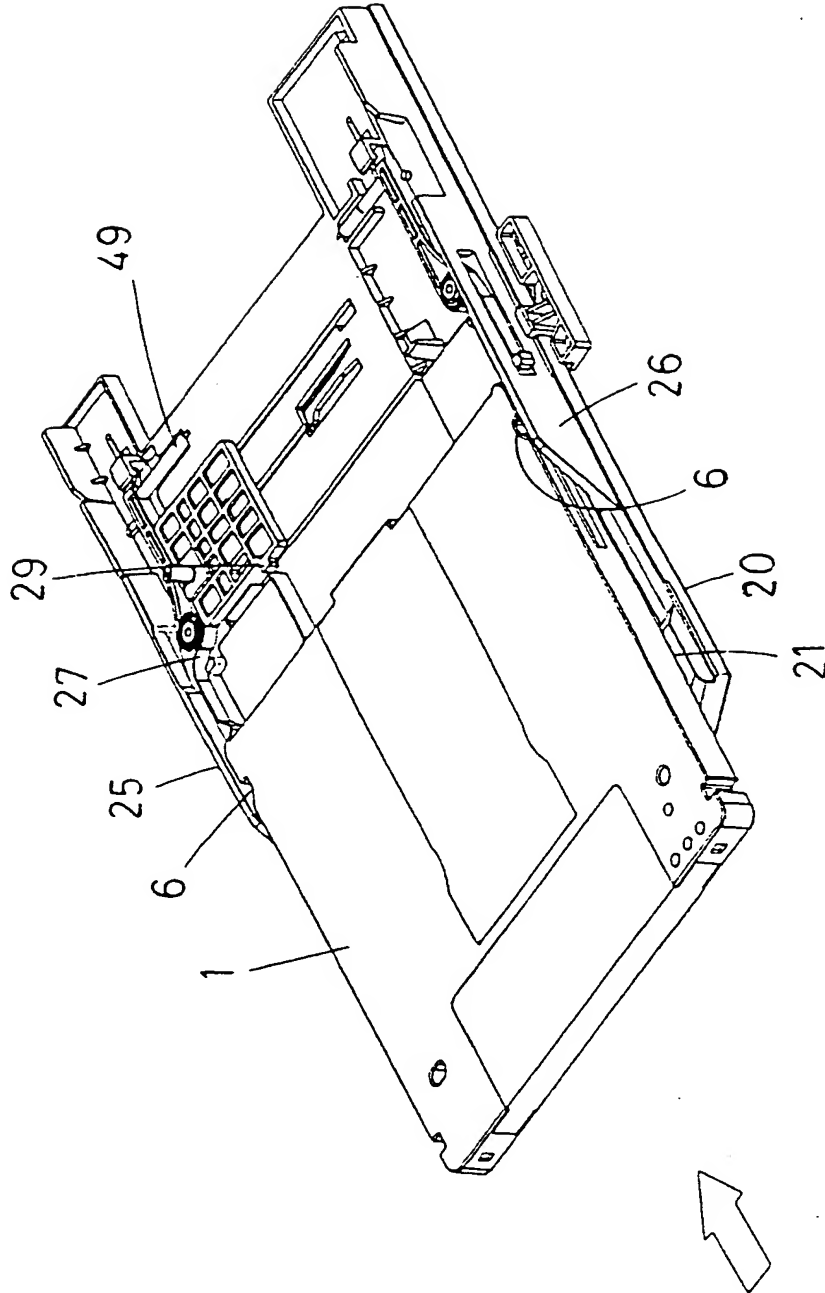


FIG. 4 4

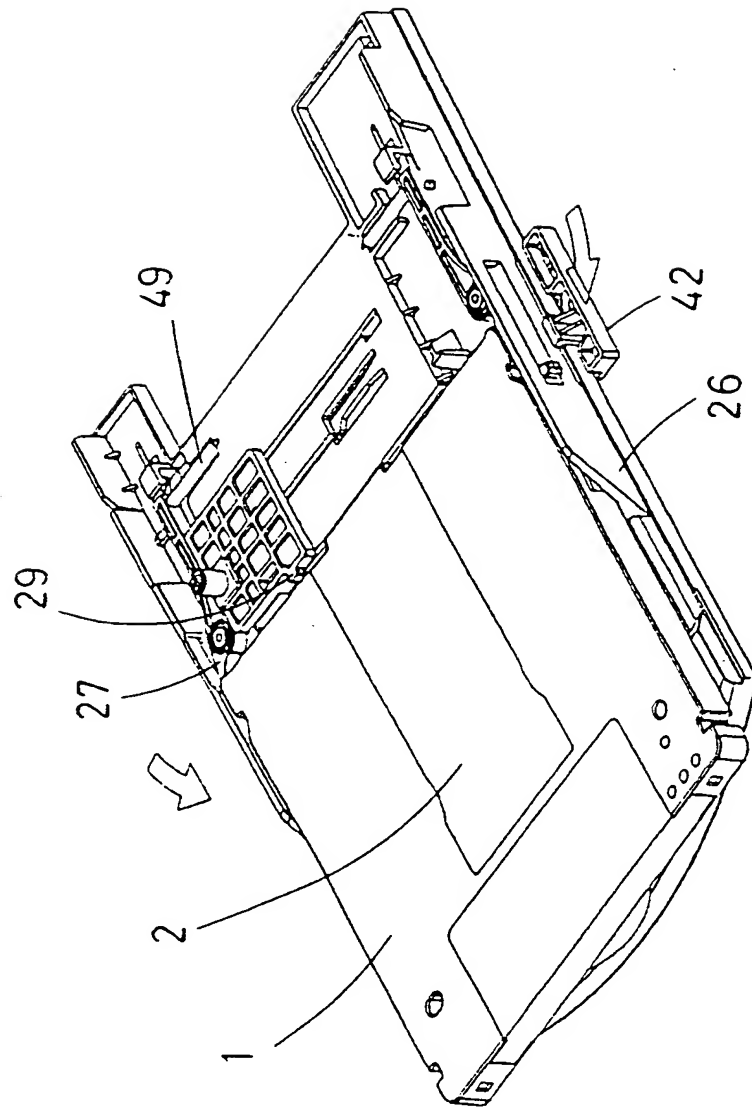


FIG. 4 5

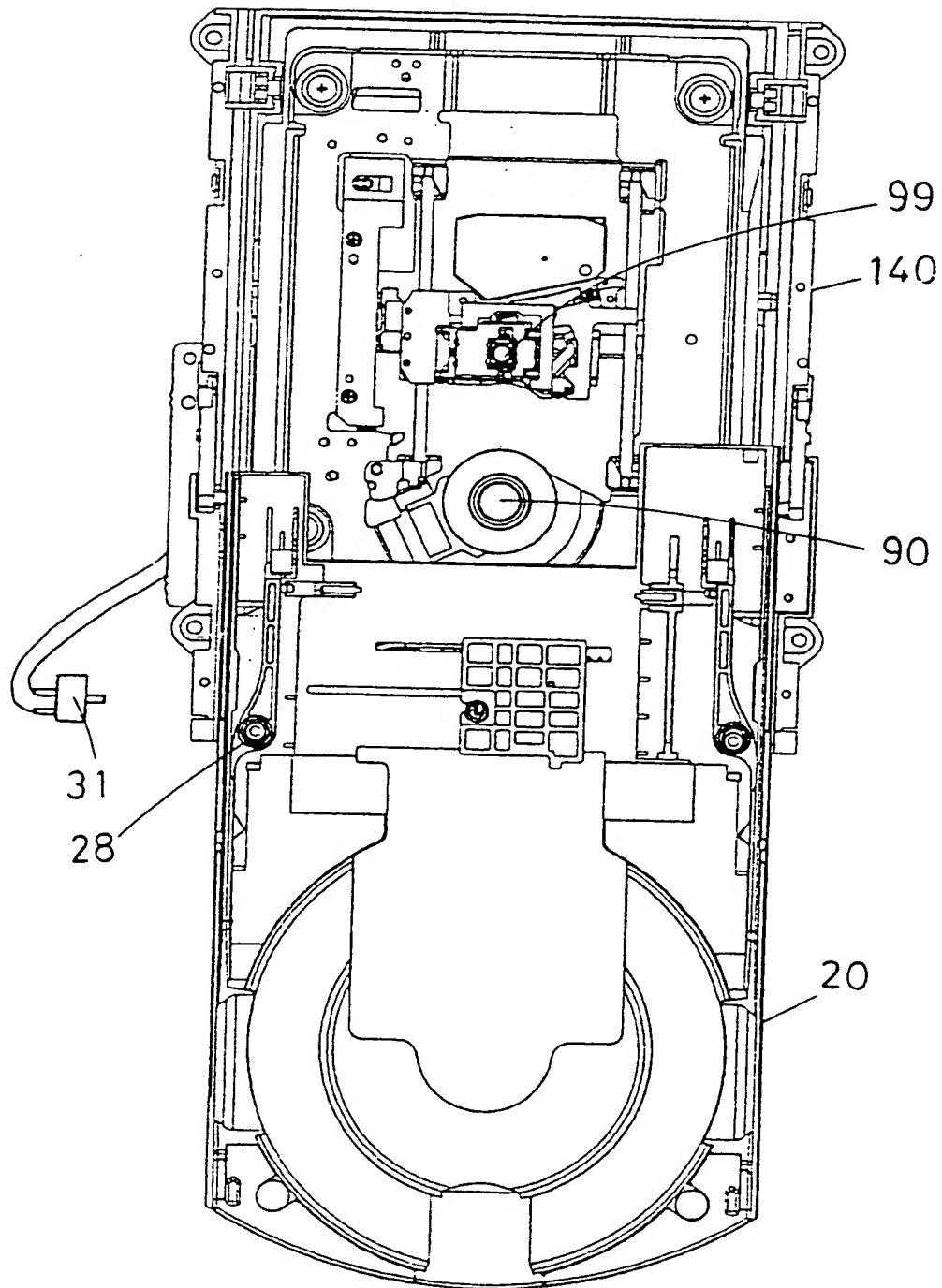
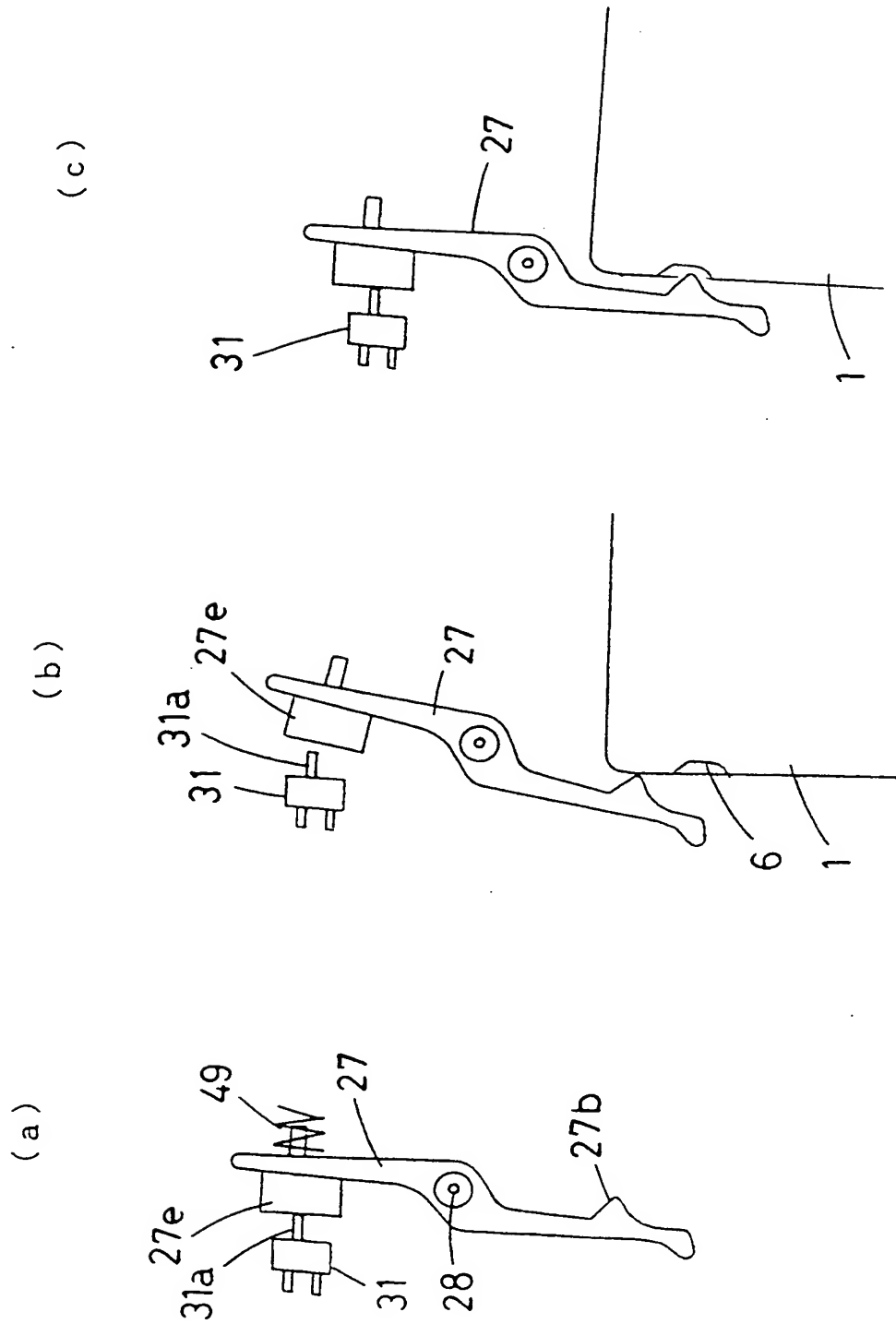
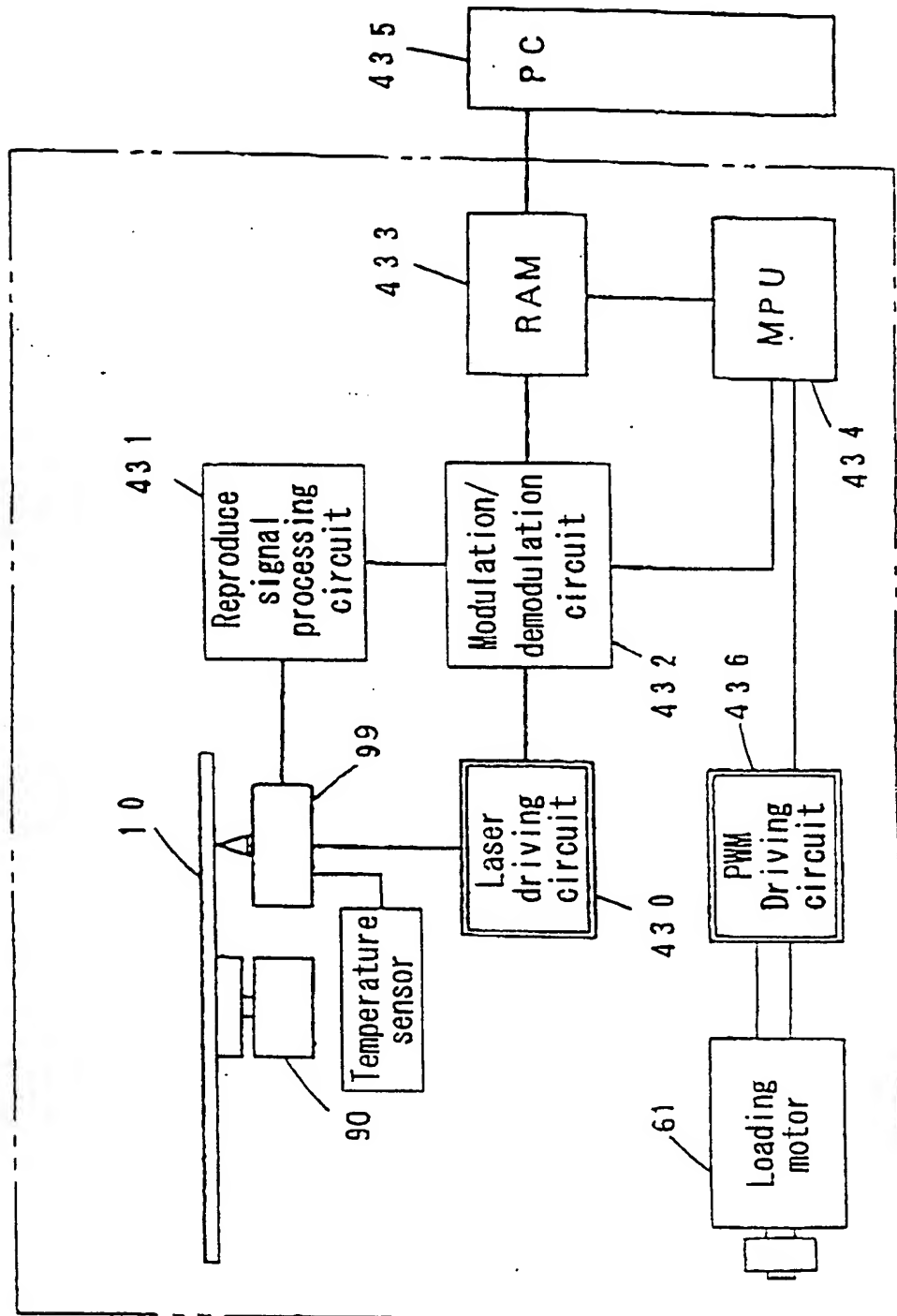


FIG. 4 6



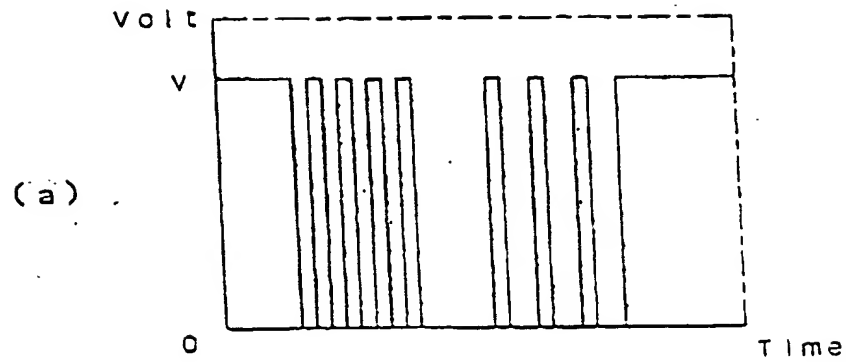
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FIG. 47

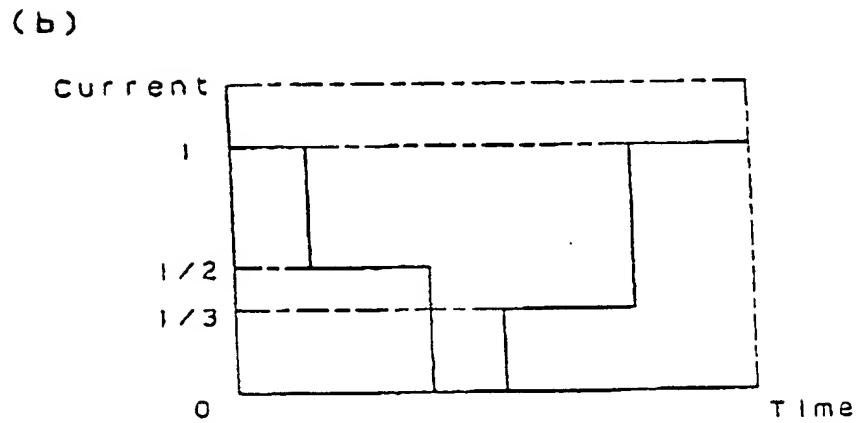


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FIG. 48



(a) PWM Drive voltage



(b) PWM Drive current

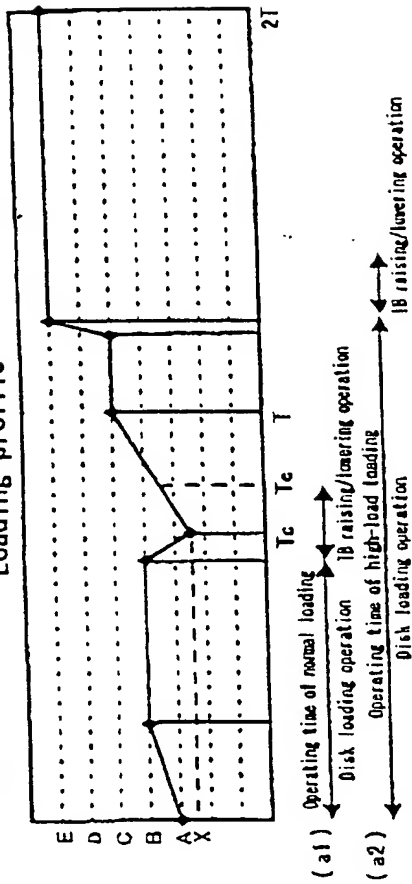
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FIG. 49

(a) Within guaranteed range of temperature (normal use temperature)

PWM driving duty (%) $X < A < B < C < D < E$

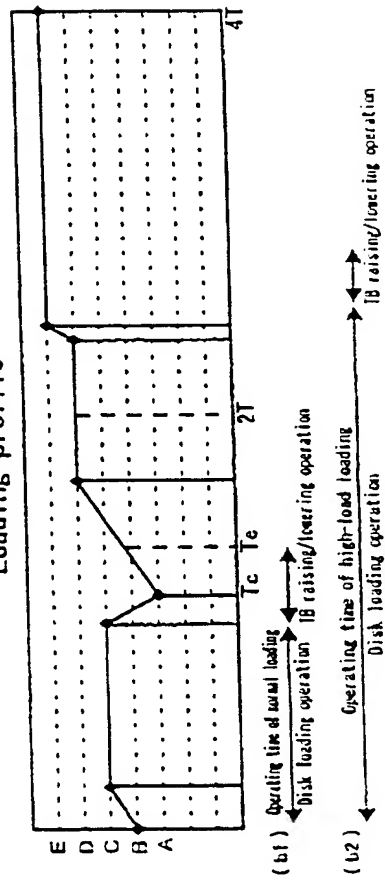
Loading profile



(b) Outside guaranteed range of temperature

PWM driving duty (%) $A < B < C < D < E$

Loading profile

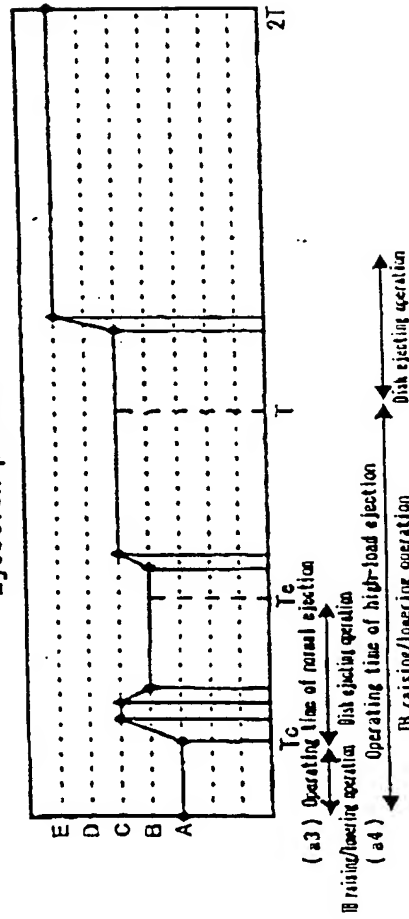


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FIG. 50

(a) Within guaranteed range of temperature (normal use temperature)
PWM driving duty (%) $A < B < C < D < E$

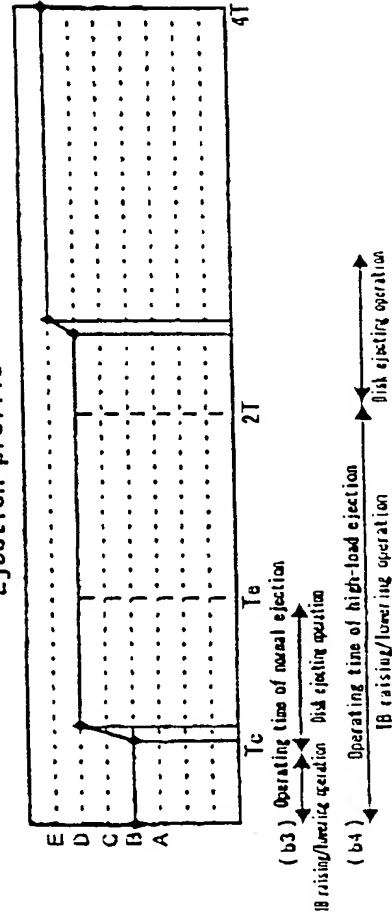
Ejection profile



(b) Outside guaranteed range of temperature

PWM driving duty (%) $A < B < C < D < E$

Ejection profile



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FIG. 51

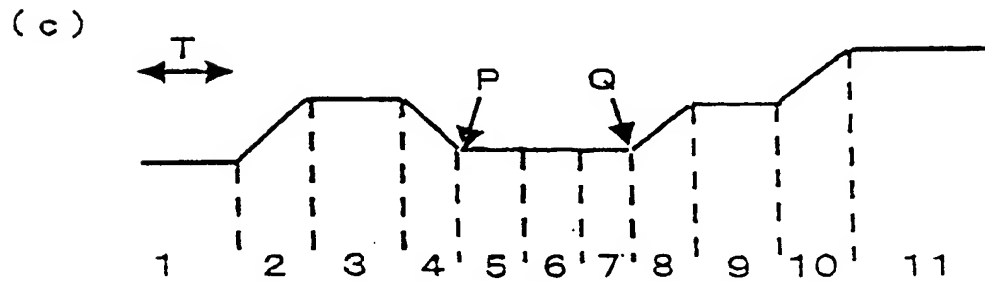
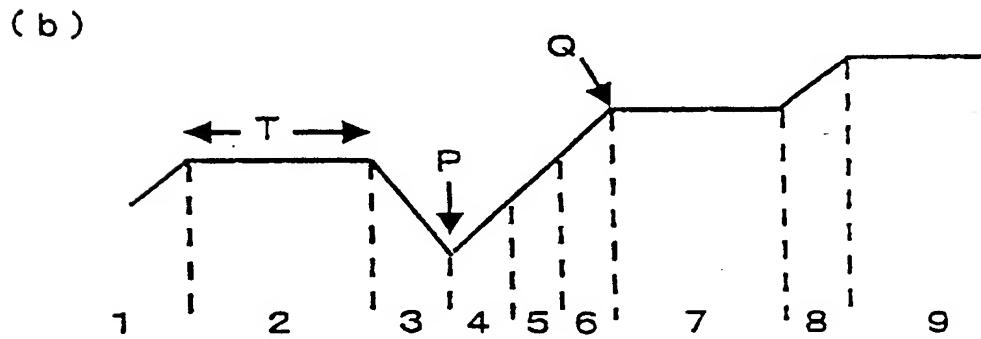
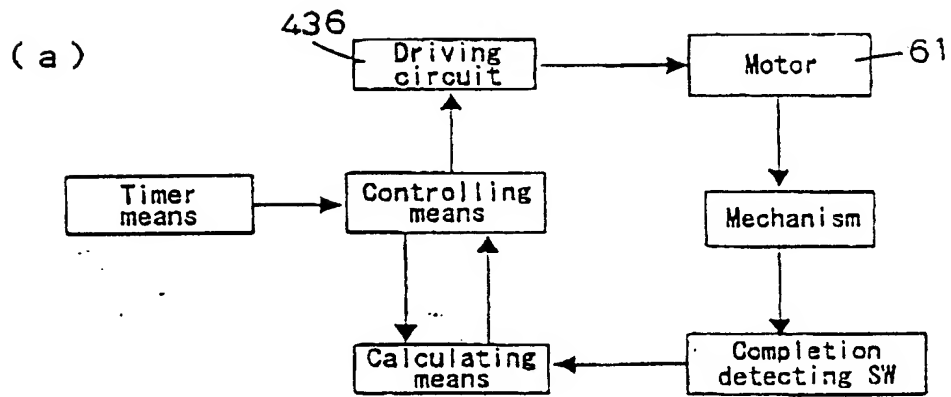


FIG. 5 2

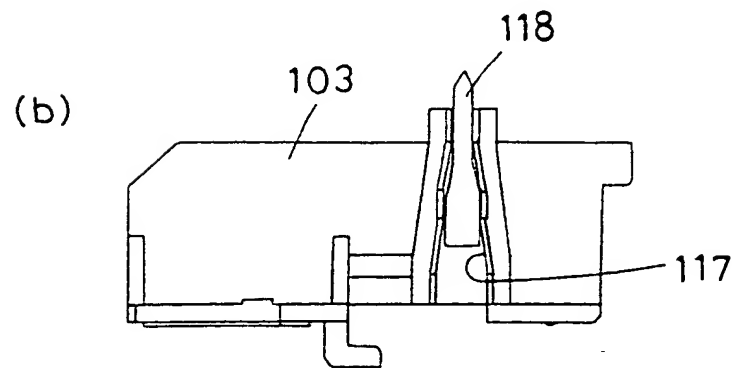
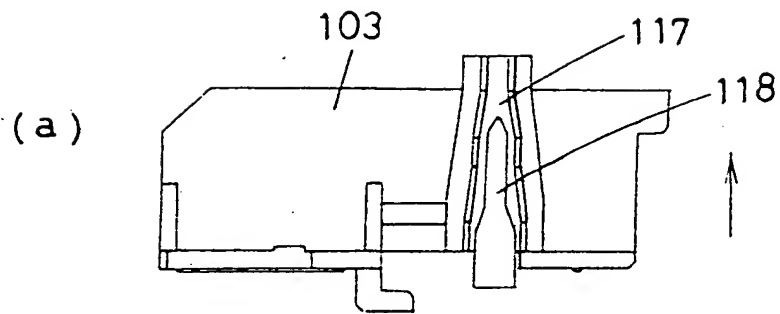


FIG. 5 3

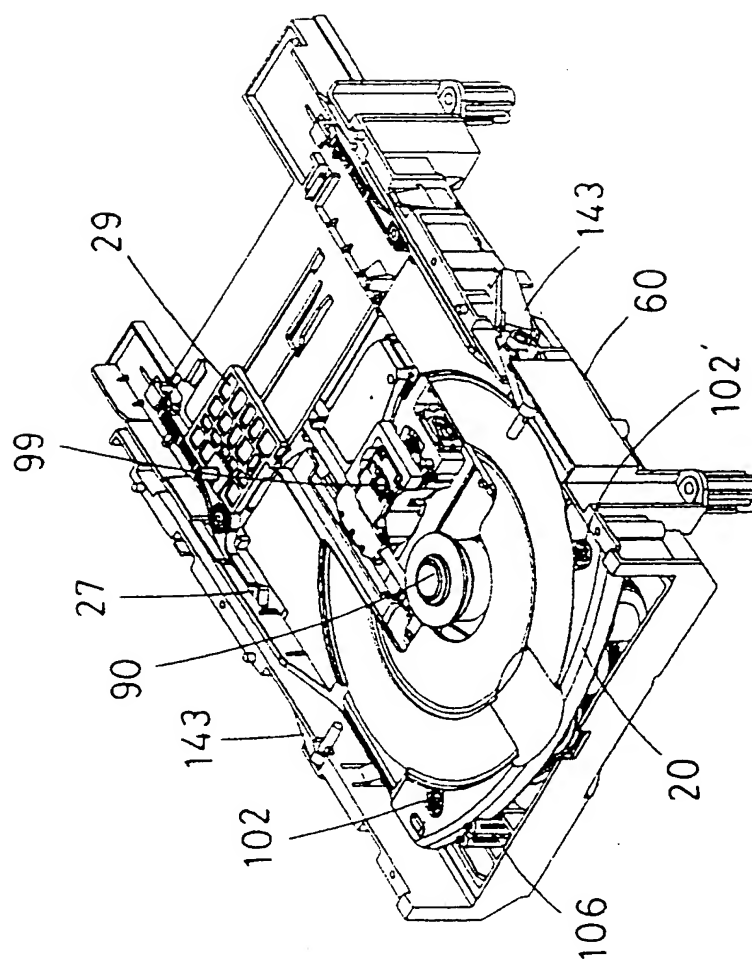


FIG. 5 4

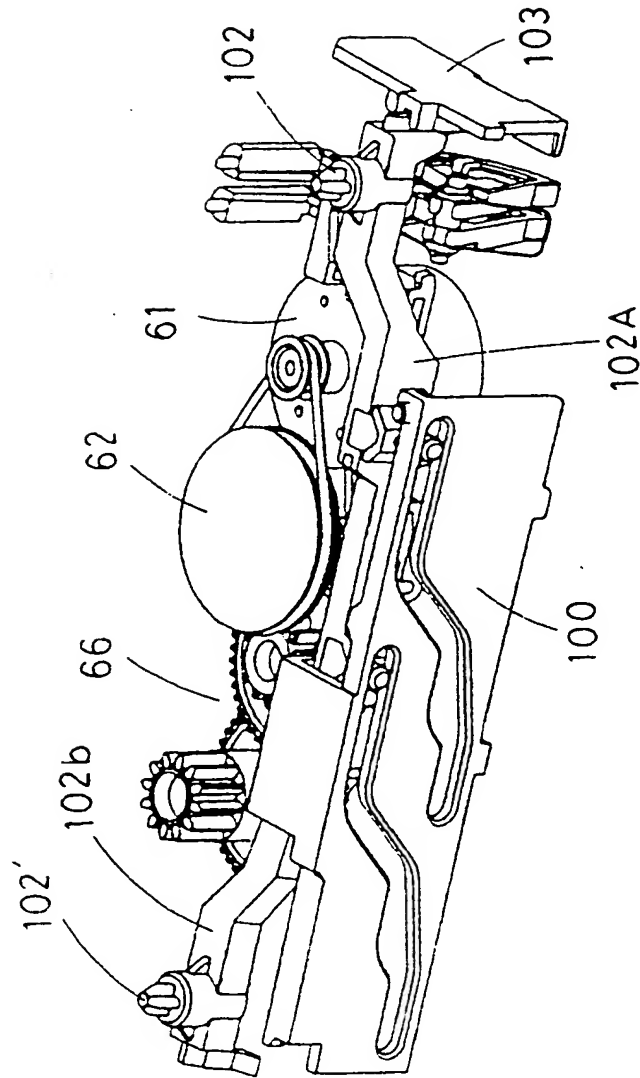


FIG. 5 5

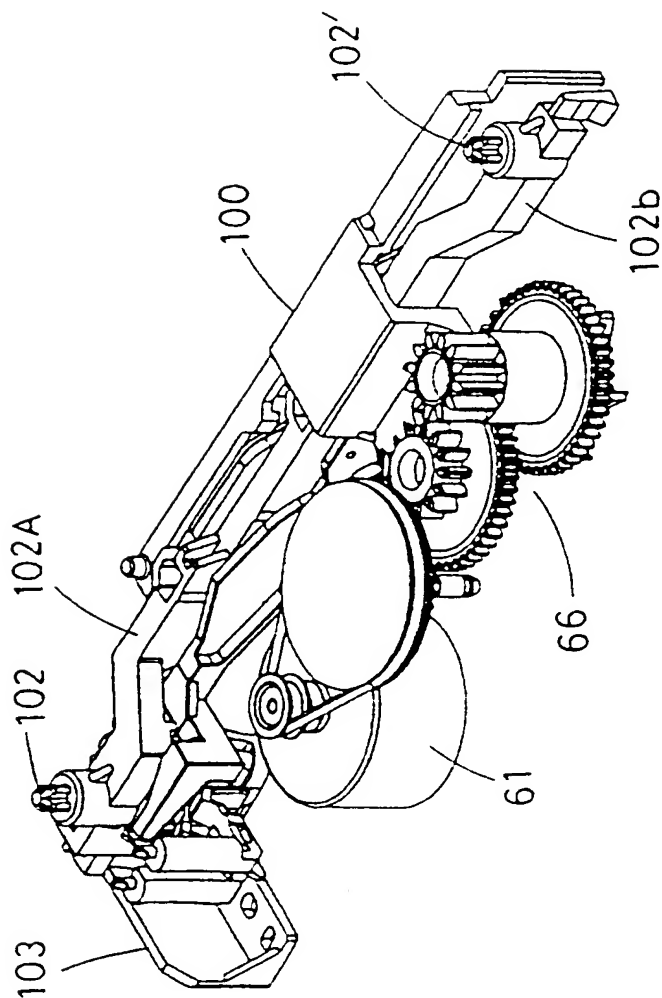


FIG. 5 6

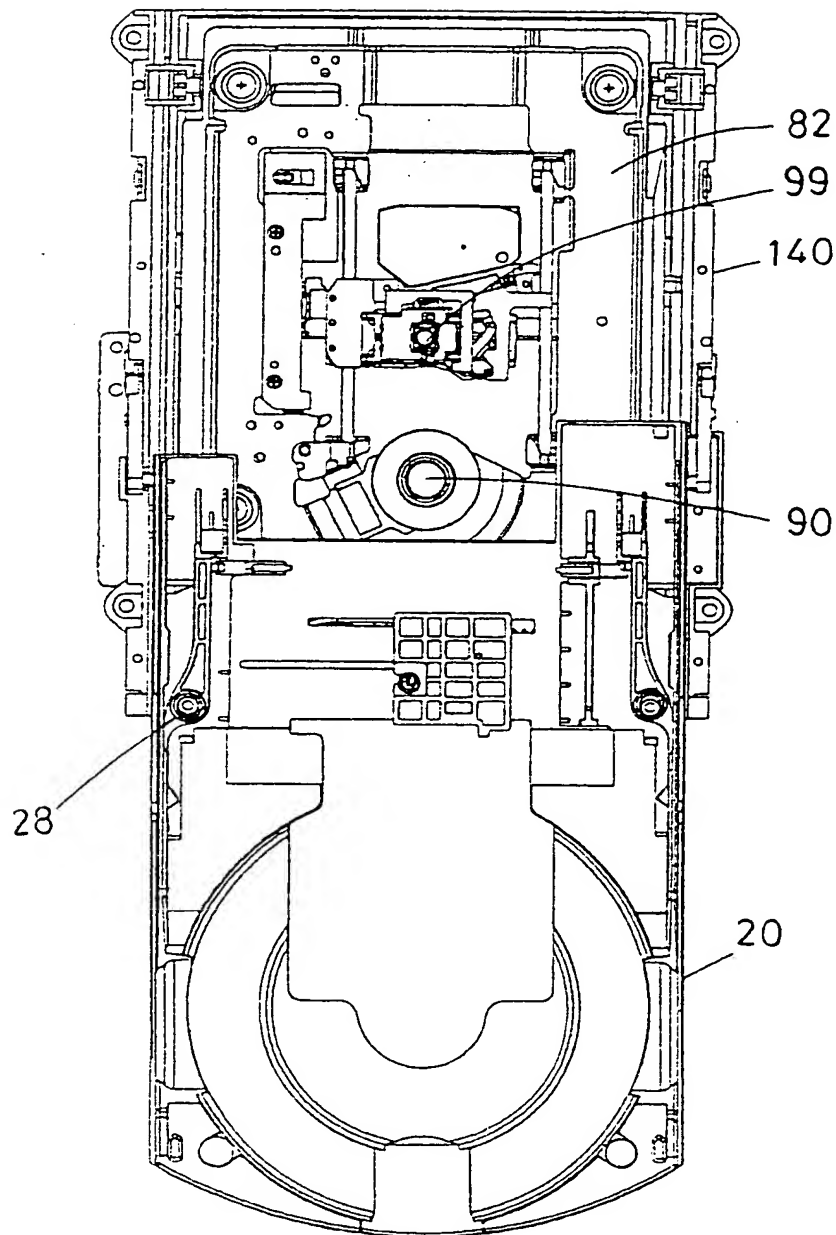
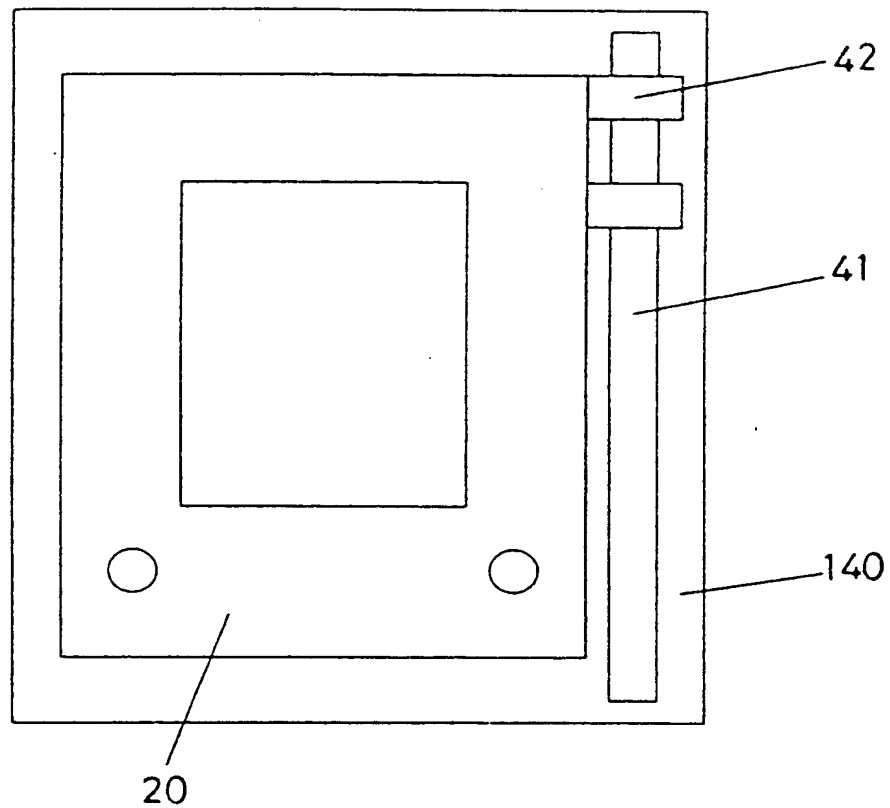


FIG. 5 7

(a)



(b)

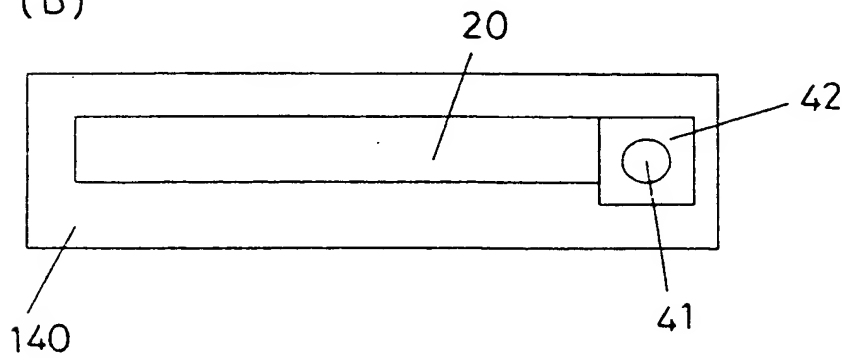


FIG. 5 8

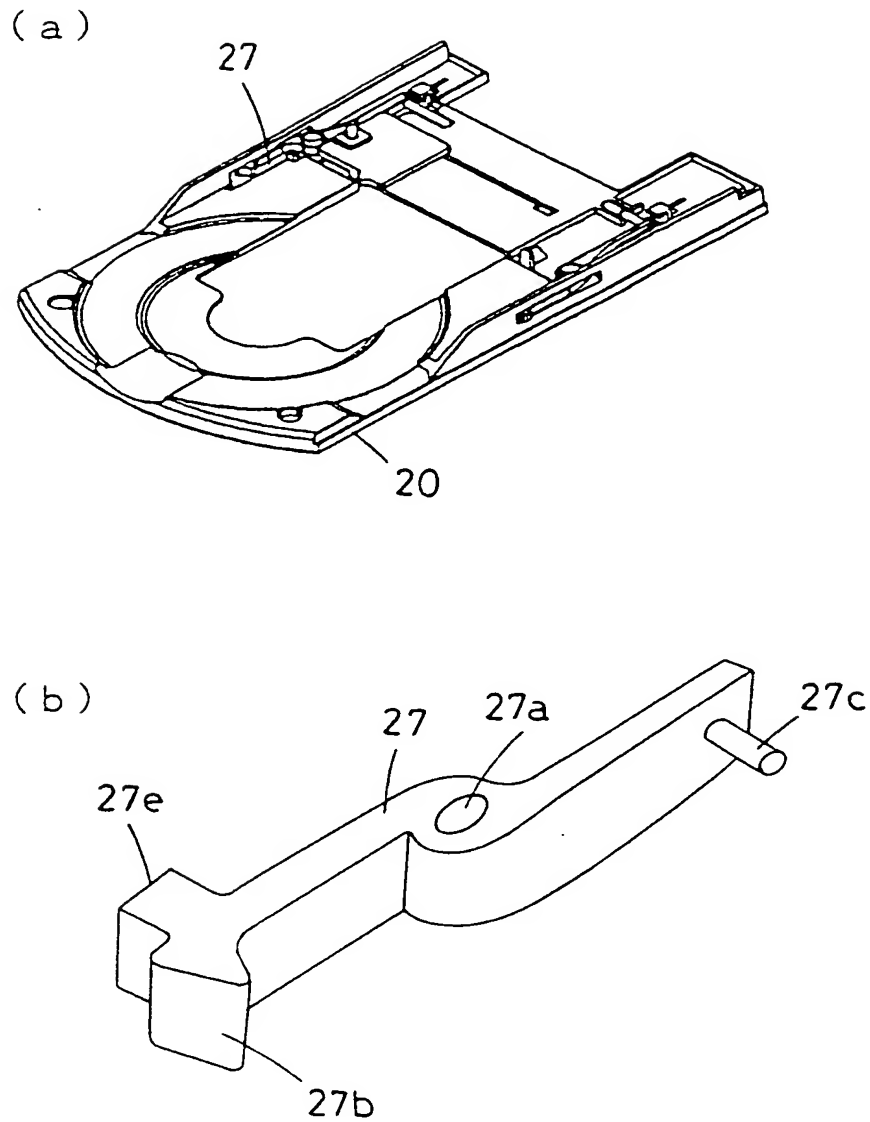
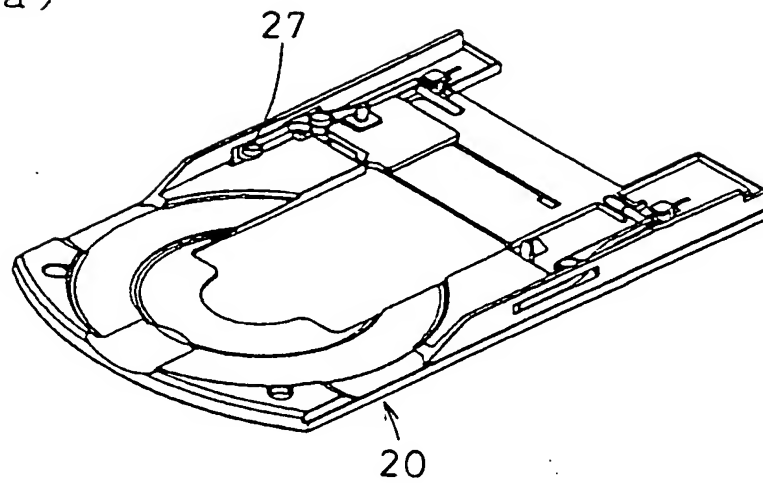


FIG. 5 9

(a)



(b)

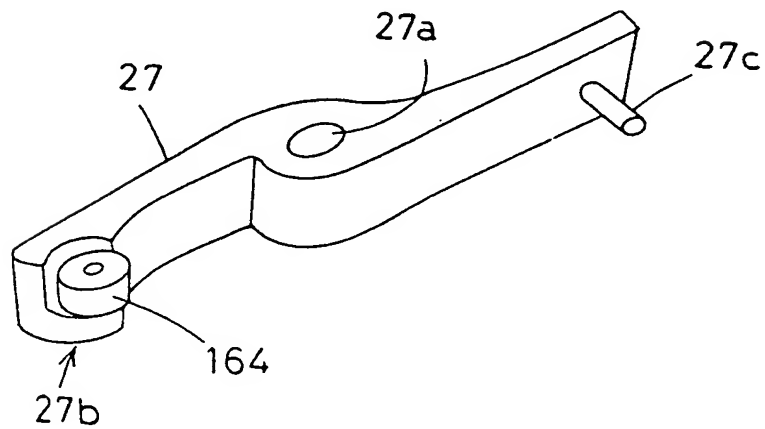


FIG. 6 O

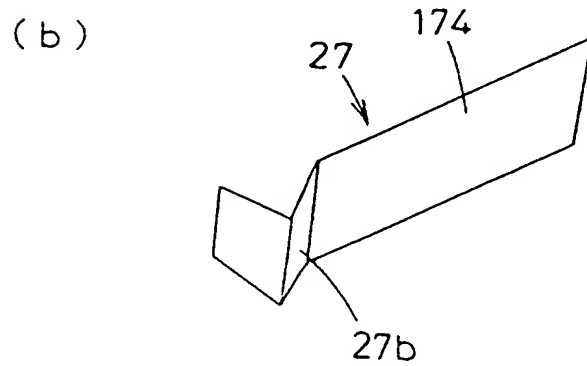
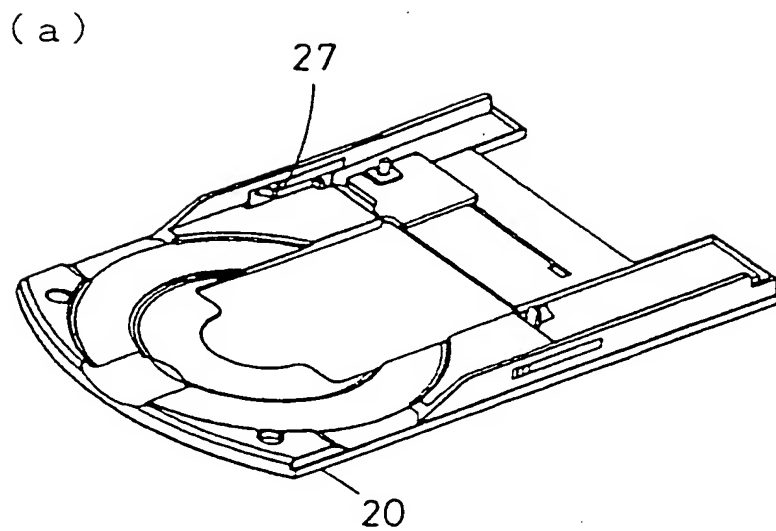
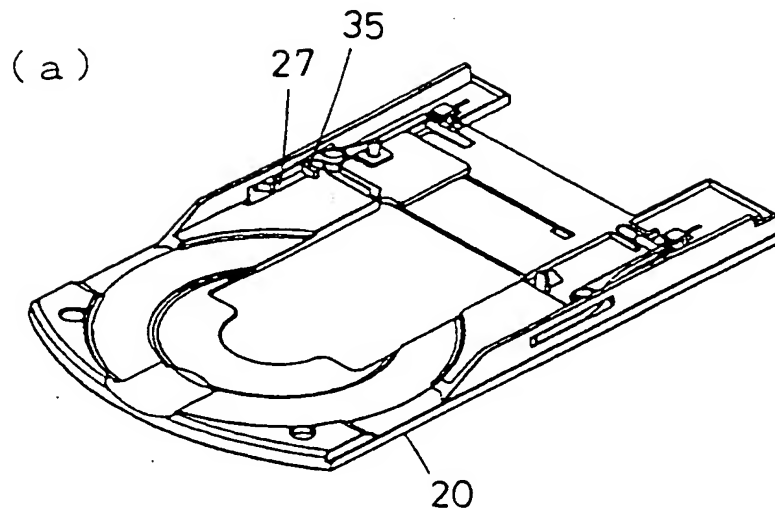


FIG. 6 1



(b)

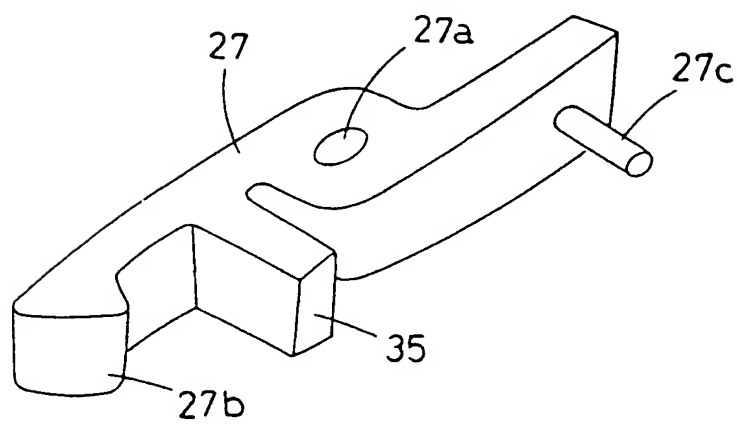


FIG. 6 2

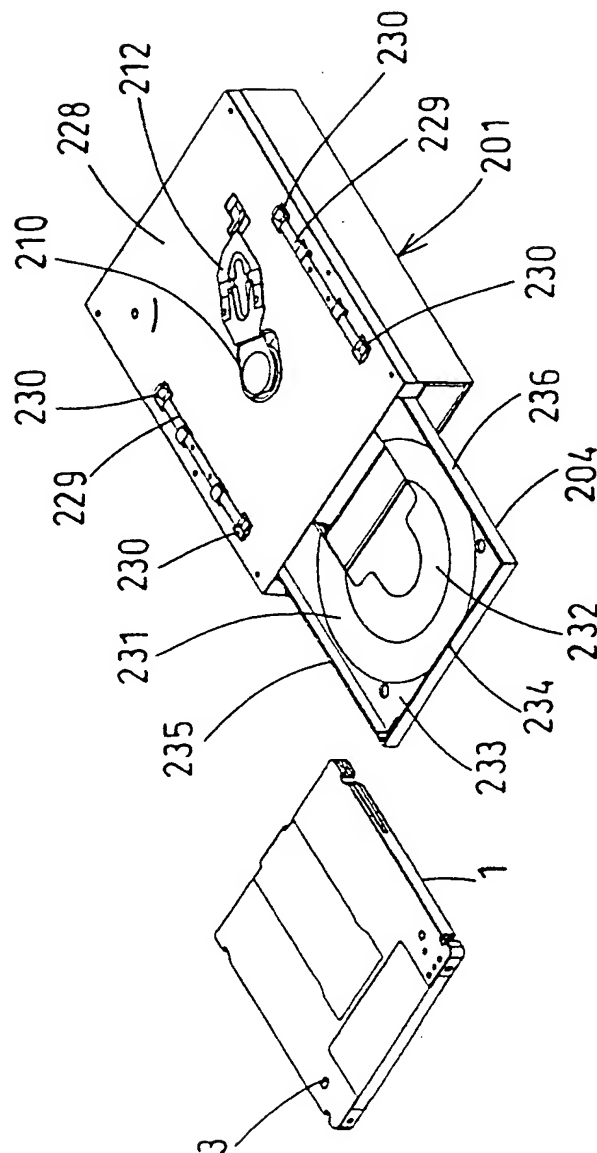


FIG. 6 3

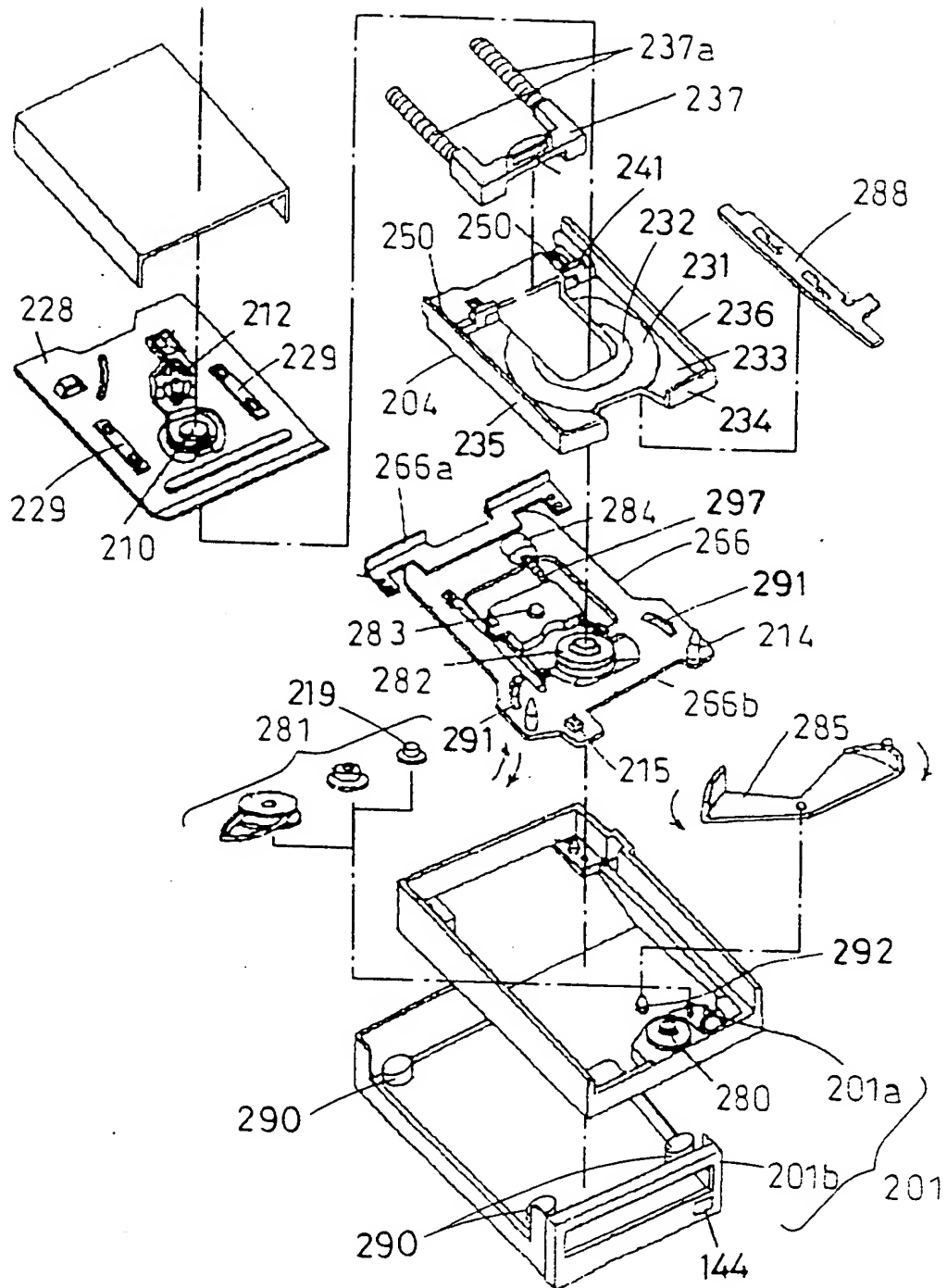


FIG. 6 4

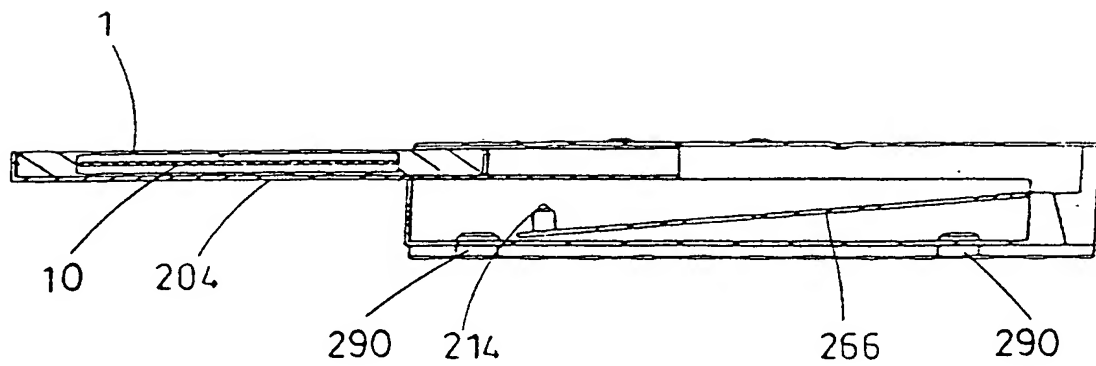


FIG. 6 5

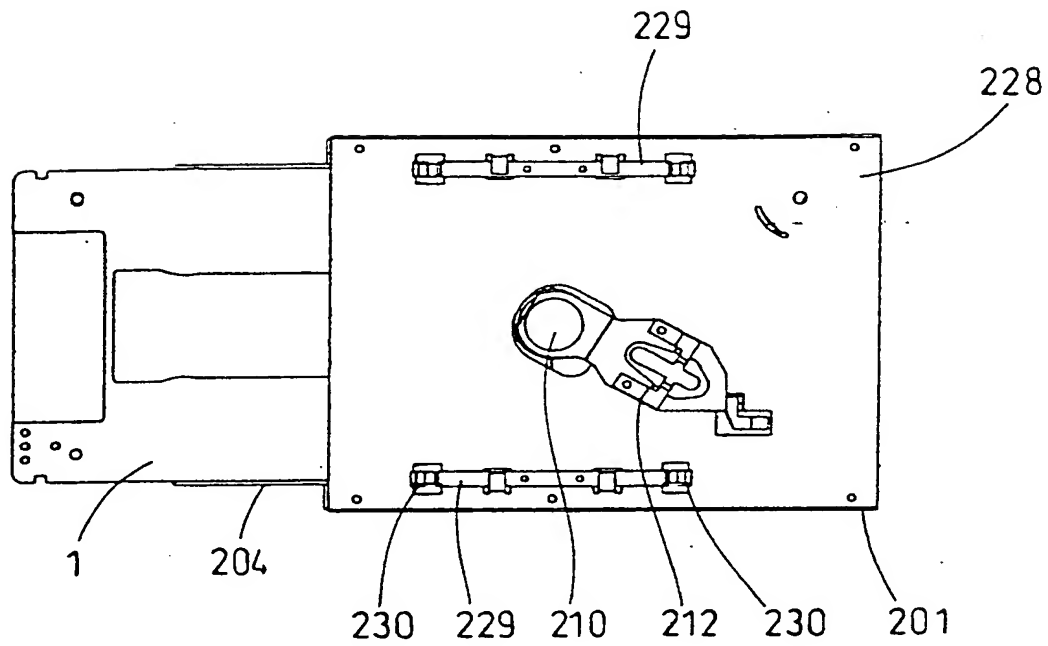
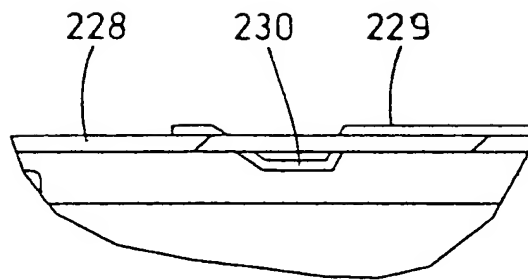


FIG. 6 6



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FIG. 67

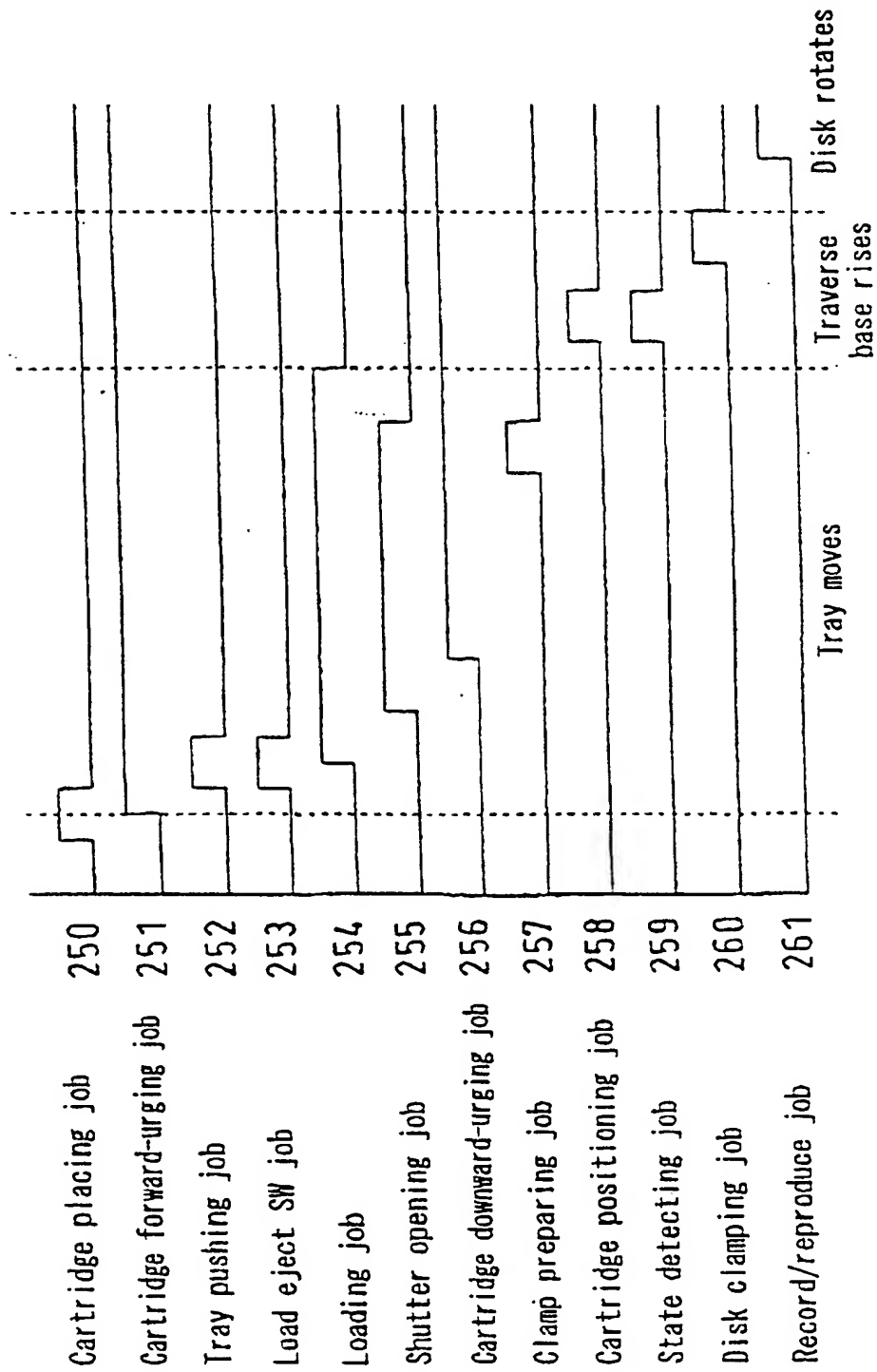
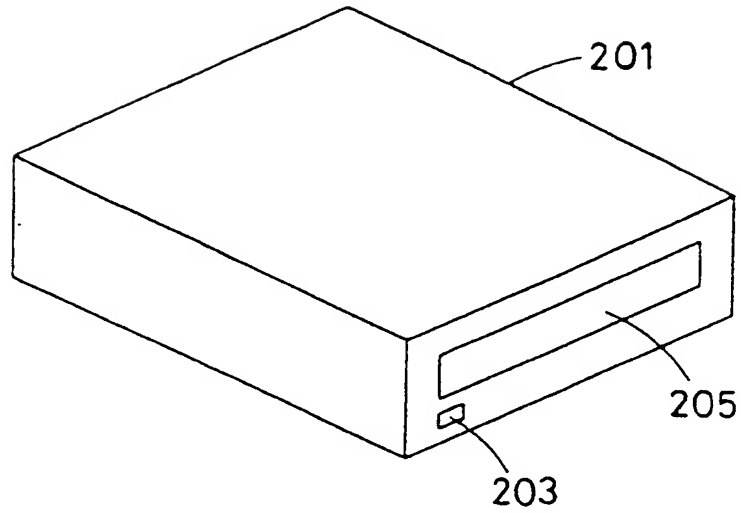


FIG. 6 8

(a)



(b)

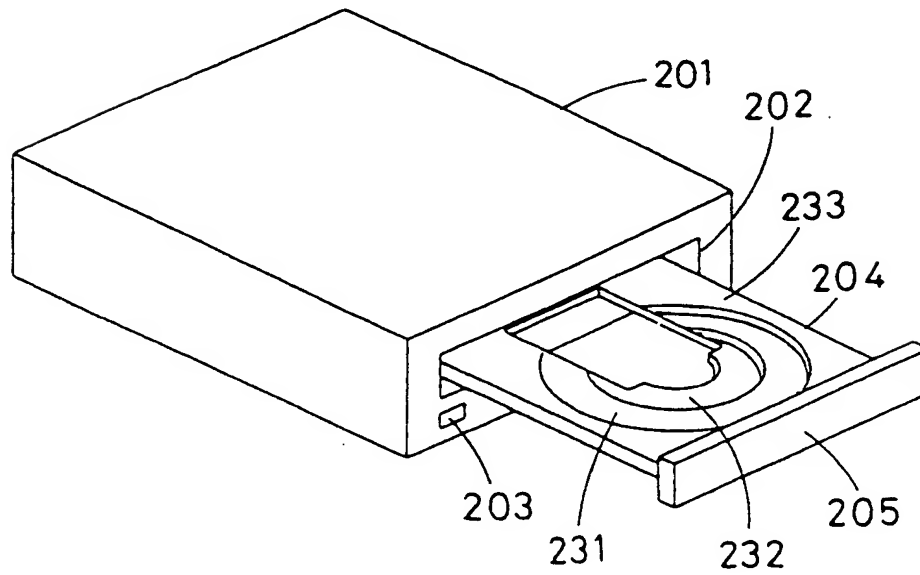


FIG. 6 9

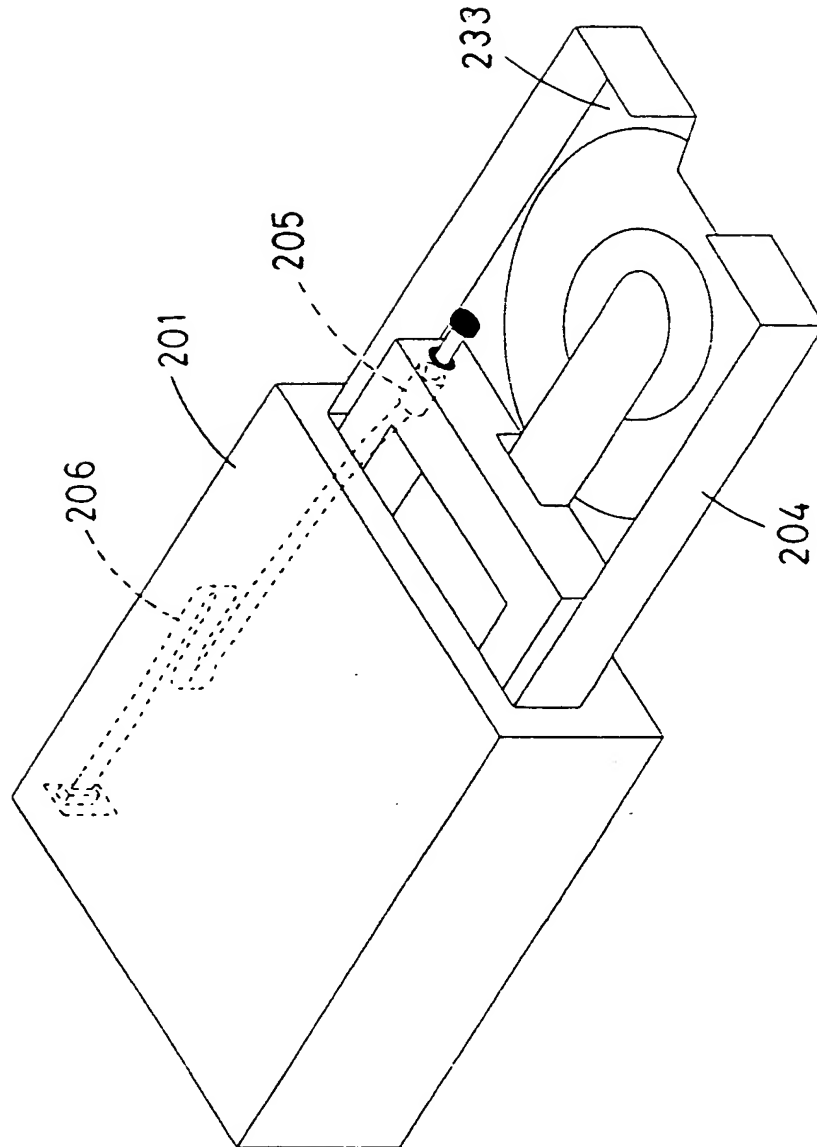
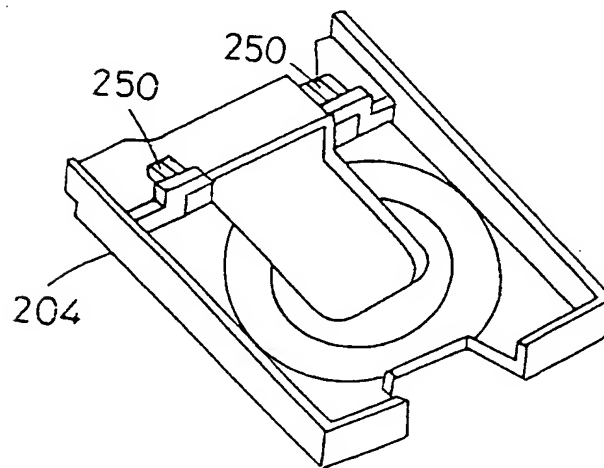
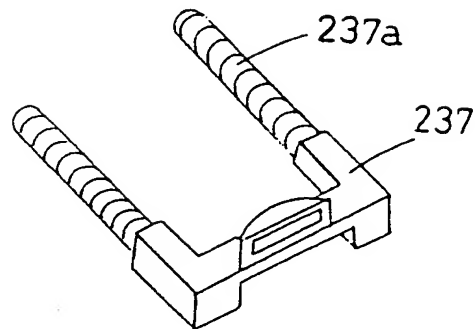
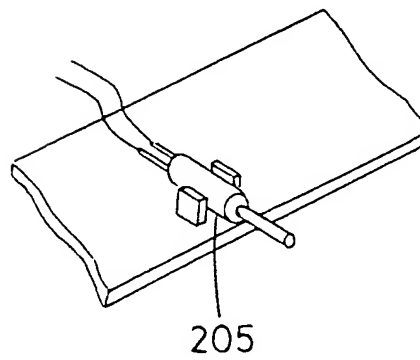


FIG. 7 O

(a)



(b)



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